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PRODUCT PROMOTION STRATEGY OF RASINAC PLUS (DICLOFENAC) GEL

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INTRODUCTION OF MARKETING

Marketing

- They study customer needs and wants in well-defined market segments.
- They allocate marketing effort in relation to the long-run profit potential of the targeted segments.
- They develop winning offers for each target segment.
- They measure company image and customer satisfaction on a continuous basis.
- They continuously gather and evaluate ideas for new products, product improvements, and services to meet customer...
- They influence all company departments and employees to be

customer-centered in theirthinking and practice.

The emergence of marketing as a business discipline is of relatively recent origin. Though it has been practiced from the time of barter through money economy to today's modern complex marketing system, exchanges have been taking place. The ideas associated with marketing have undergone a great deal of change over centuries. Even after marketing became a full–fledged business discipline.

Marketing, more than any other business function, deals with customer. It revolves around the customer. Building relationship based on customer value and satisfaction is at the very heart of modern marketing. The pricing strategies adopted the promotional tools selected; the design, shape and size of the product and the place of sales etc. are all decided after finding out the lifestyle, culture, buying habits and media consumption habits etc. of all customers.

Marketing links producers and consumers together for mutual benefits production will be meaningless if goods produced are not supplied to consumers through appropriate marketing mechanism. When we saw around us, we find marketing in advertisements that fill our T.V. spice up our magazines, stuff our mailbox or enliven our web pages. At home, at school, where we play, and where we work. We came across the marketing in almost everything that we do. Behind it all is a massive network of people and activities competing for our attention and purchases.

IMPORTANCE OF MARKETING

(1) Marketing Is an Effective Way of Engaging Customers

It's important for your business to engage its customers. Marketing is a tool to keep the conversation going.

Engaging customers is different from pushing your offers. Engaging involves furnishing your customers with relevant information about your products and your business as well. It's all aboutcreating fresh content.

Tell your customers what they don't know. Let it be interesting and worth their time.

Social media is one of the best platforms where you can engage your customers. Some organizations use short videos and other humor-laden tricks to engage their customer base.

By engaging your customers, marketing gives them a sense of belonging.

(2) Marketing Helps to Build and Maintain the Company's Reputation

The growth and life span of your business is positively correlated to your business's reputation. Hence, it's fair to say your reputation determines your brand equity.

A majority of marketing activities are geared towards building the brand equity of the company. Your business's reputation is built when it effectively meets the expectations of its customers. Such a business is considered a responsible member of the community. The customers become proud to be associated with your products.

Marketers use effective communication, branding, PR and CSR strategies to ensure that a business's reputation is maintained.

(3) Marketing Helps to Build a Relationship Between a Business and Its Customers

Businesses need to build a relationship of trust and understanding with their customers. How does marketing establish this relationship?

Marketing research segments should be based on demographics, psychographics, and consumer behavior.

Segmentation helps the business meet the needs of its customers hence gaining their trust. The product team ensures the business delivers what's promised at the right time. This makes the customers brand loyal.

Loyal customers will have the confidence to buy more products from you. The trust and understanding between the business and its customers make your commercial activities more fruitful.

(4) Marketing Is a Communication Channel Used to Inform Customers

Marketing informs your customers about the products or services you're offering them.

Through marketing, the customers get to know about the value of the products, their usage and additional info that might be helpful to the customers. It creates brand awareness and makes the business stand out.

There's stiff competition in the market and you need to be a constant voice to convince the customers. Inform your customers of discounts and other competitive tricks you intend to use.

Through communication, marketing helps your business become a market leader. This post explains more about how to gain a competitive advantage.

(5) Marketing Helps to Boosts Sales

Marketing utilizes different ways to promote your products or services. Once a product has been advertised, it's already on the radar and this increases your chances of selling it.

Customers may want to try your products or services and this will trigger a purchase decision. When customers are happy about your products or services, they become your brand ambassadors without your knowledge. They will spread the word and your sales will start to increase.

(6) Marketing Aids in Providing Insights About Your Business

Every marketer understands the need for targeting the right audience. However, you must have the right content to share with such an audience. Your marketing strategies can help you establish what business messaging will convince the target audience.

At this point, you have to test different messages and see what works. Once you have tested different sets of messaging on the target audience, you will find a viable baseline for your marketing efforts.

It acts as a metric and provides the insight needed to make you avoid guesswork.

(7) Marketing Helps Your Business to Maintain Relevance

Every marketer understands the need for disrupting a potential consumer's opinion about other products. But don't make a mistake of taking this chance for granted.

Most businesses assume that they will always remain the client's favorite brand because up to now the client has never complained. This is the wrong mindset. You need to find ways to remain at the top of the client's mind.

Every relationship needs to be maintained. Marketing helps your business to maintain a good relationship with customers by making you remain relevant.

Don't focus on gaining new customers before addressing the need to retain the present ones.

(8) Marketing Creates Revenue Options

During the startup phase, your options are sparse since you're mostly cash-strapped. This limitsyour options.

As your marketing strategies generate more customers and revenue opportunities, you'll beginhaving options. Having options is comparable to having a nice war chest.

Having options will give you the courage you need to penetrate new markets. You will have the freedom to start letting go of customers who are too demanding to your sanity and well-being.

Without marketing, you will be forced to continue working with clients who you have outgrownand are paying you peanuts.

(9) Marketing Helps the Management Team to Make Informed Decisions

Every business is confronted with problems such as to what, when, for whom and how much toproduce. A complex and tedious process determine your business's survival. As a result, businesses heavily rely on marketing mechanisms to make these decisions.

Why should you rely on marketing mechanisms? These mechanisms serve as a reliable link between your business and society. They cultivate people's mind, educate the public and convince them to buy.

MARKETING RESEARCH

Marketing research (also called consumer research) is a form of business research. The field of marketing research as a statistical science was pioneered by Arthur Nielsen with the founding of the ACNielsen Company in 1923. Marketing research is a systematic and objective study of problems pertaining to the marketing of goods and services. It is applicable to any area of marketing. Research is the only tool an organization has to keep in contact with its external operating environment. In order to be proactive and change with the environment simple questions need to be asked

What are the customer needs and how are they changing? How to meet these changing needs? What do the customers think about existing products or services? What more are they looking at?

What are the competitors doing to retain customers in this environment? Are their strategies exceeding or influencing yours? What should you do to be more competitive?

strategiesexceeding or influencing yours? What should you do to be more competitive?

— How are macro and micro environmental factors influencing your organisation? How

☐ How are macro and micro environmental factors influencing your organisation? How will youreact t this environment?

Authors have defined Marketing Research in many ways:

☐ Kotler (1999) defines marketing research as systematic problem analysis, model-building and fact-finding for the purpose of improved decision-making and control in the marketing of goods and services'.

☐ The American Marketing Association (AMA, 1961) defines it as _the systematic gathering, recording and analyzing of data relating to the marketing of goods and services'.

☐ Green and Tull have defined marketing research as the systematic and objective search for and analysis of information relevant to the identification and solution of any problem in the field of marketing.

The aim of marketing management is to satisfy the needs of the consumer. Marketing research helps in achieving this. Marketing research is a systematic and logical way of assessing ways of satisfying customer needs. According to all the above definitions, Marketing Research starts by stating the problem or the issue to be investigated; indicate what kind of information is required to resolve the problem; identify where and how to get it; specify the methodology for analyzing the research findings; sum up the research findings and then suggest the best solution formarketing decision making.

Scope of marketing research: Marketing research can be used in:

- □ **Product Management:** One of the major scope of marketing research is to manage the current products and new products. In product management Marketing Research is helpful in oCompetitive Intelligence To understand the competitive productstrategy.
- Prelaunch strategy for new products
- Test Marketing: To monitor the performance of the brand by launching in a select area and then taking it across the country. In other words it is a small-scale product launch used to determine the likely acceptance of the product when it is introduced into a wider market.
- Concept testing to test the acceptance of a concept by target consumers.
- □ Sales analyis: Marketing research is used to study the sales trend and make suitable strategies when required. It is used to
- Assess market potential
- o Estimation of demand for a product
- Market share estimation o Study seasonal variation for a product
- Market segmentation studies
- Estimate size of the market
- Need analysis to find out where the product fits in.
- □ **Corporate Research:** Marketing Research is used to analyse the corporate effectiveness. Some examples are
- Assessing the image of the company
- Knowledge of the company activities.
- □ **Advertising Research:** Advertising is an arena in which Marketing Research is extensively used. Some scope are
- Readership feedbacks Mainly carried out for newspapers and magazines

Advertising Recall – To assess the recall of telivision or other advertising and thereby assess its effectiveness.
Syndicated Research: This is compiled by agencies on a regular basis and sold to organisations on subscription basis.
All of these forms of marketing research can be classified as either problemidentification research or as problem-solving research. A similar distinction exists between exploratory research and conclusive research.
Exploratory research provides insights into and comprehension of an issue or situation. It should draw definitive conclusions only with extreme caution.
Conclusive research draws conclusions: the results of the study can be generalized to the whole population. Research can also be.
Primary Marketing Research: It is research conducted by an organisation for its own purpose which addresses its requirements. It is generally expensive but is specific and objective to the organisation's requirement.
Secondary Marketing Research: This is used if the organisation is considering extending its business into new markets or adding new services or product lines. This type of research is based on information obtained from studies previously performed by government agencies, chambers of commerce, trade associations and other organizations. This also includes Census Bureau information.
In other terms this is research published previously and usually by someone else. Secondary research costs less than primary research, but seldom comes in a form that exactly meets the needs of the researcher. It can cater to anyone who wishes to use the data. This data can be found in local libraries or on the Web, but books and business publications, as well as magazines and newspapers, are also great sources.
Marketing Research Methods Methodologically, marketing research uses four types of research designs, namely.

or service.

The respondents are generally few in number and the findings cannot be generalised tot eh whole population. No statistical methods are generally applied.

Ex: Focus groups, In-depth interviews, and Projective techniques.

Quantitative marketing research: This is generally used to draw conclusions for a specific problem. It tests a specific hypothesis and uses random sampling techniques so as to infer from the sample to the population. It involves a large number of respondents and analysis is carried out using statistical techniques. Ex: Surveys and Questionnaires.

Observational techniques: The researcher observes social phenomena in their natural setting and draws conclusion from the same. The observations can occur cross-sectionally (observations made at one time) or longitudinally (observations occur over several time-periods) Ex: Product- use analysis and computer cookie tracing.

□ **Experimental techniques:** Here, the researcher creates a quasiartificial environment to try to control spurious factors, then manipulates at least one of the variables to get an answer to a research Ex: Test marketing and Purchase laboratories.

Marketing Strategies

Because it takes time to roll out a new product, work out the technical problems, fill dealer pipelines, and gain consumer acceptance, sales growth tends to be slow in the introduction stage.45 Profits are negative or low, and promotional expenditures are at their highest ratio to sales because of the need to inform potential consumers, induce product trial, and secure distribution in retail outlets. 46 Firms focus on buyers who are the most ready to buy. Prices tend to be higher because costs are high. Companies that plan to introduce a new product must decide when to enter the market. To be first can be rewarding, but risky and expensive. To come in later makes sense if the firm can bring superior technology, quality, or brand strength to create a market advantage.

Marketing Strategies: Growth Stage

The growth stage is marked by a rapid climb in sales. Early adopters like the product and additional consumers start buying it. New competitors enter, attracted by the opportunities. They introduce new product features and expand distribution. Prices stabilize or fall slightly,

depending on how fast demand increases. Companies maintain promotional expenditures or raisethem slightly, to meet competition and continue to educate the market. Sales rise much faster than promotional expenditures, causing a welcome decline in the promotion—sales ratio. Profits increase as promotion costs are spread over a larger volume, and unit manufacturing costs fall faster than price declines, owing to the producer-learning effect. Firms must watch for a change to a decelerating rate of growth in order to prepare new strategies.

To sustain rapid market share growth now, the firm

- Improves product quality and adds new features and improved styling.
- Adds new models and flanker products (of different sizes, flavors, and so forth) to protect themain product.
- Enters new market segments.
- Increases its distribution coverage and enters new distribution channels.
- Shifts from awareness and trial communications to preference and loyalty communications.
- lowers prices to attract the next layer of price-sensitive buyers.

By spending money on product improvement, promotion, and distribution, the firm can capture a dominant position. It trades off maximum current profit for high market share and the hope of even greater profits in the next stage.

Marketing Strategies: Maturity Stage

At some point, the rate of sales growth will slow, and the product will enter a stage of relative maturity. Most products are in this stage of the life cycle, which normally lasts longer than the preceding ones.

The maturity stage divides into three phases: growth, stable, and decaying maturity. In the first, sales growth starts to slow. There are no new distribution channels to fill. New competitive forces emerge. In the second phase, sales per capita flatten because of market saturation. Most potential consumers have tried the product, and future sales depend on population growth and replacement demand. In the third phase, decaying maturity, the absolute level of sales starts to decline, and customers begin switching to other products.

This third phase poses the most challenges. The sales slowdown creates overcapacity in the industry, which intensifies competition. Weaker competitors withdraw. A few giants dominate—perhaps a quality leader, a service leader, and a cost leader—and profit mainly through high volume and lowercosts. Surrounding them is a multitude of market niches, including market specialists, product specialists, and customizing firms.

The question is whether to struggle to become one of the big three and achieve profits through high volume and low cost, or pursue a niching strategy and profit through low volume and high margins. Sometimes the market will divide into low- and high-end segments, and market shares of firms in the middle steadily erode. Here's how Swedish appliance manufacturer, Electrolux, has coped with this situation.

TYPE OF MARKETING STRATEGIES-

1) Market leader strategies

- ☐ Expand total market.
- ☐ Defend market share.
- ☐ Expand market share.

2) Market challenger strategies

- ☐ Define strategic objective and opponents.
- Choosing an attack strategy.

3) Market follower strategies

4) Market niche strategies

INTRODUCTION OF DICLOFENAC GEL

Nonsteroidal Anti-inflammatory Drug (NSAID)

All drugs grouped in this class have analgesic, antipyretic and anti-inflammatory actions in different measures. In contrast to morphine, they do not depress CNS, do not produce physical dependence, have no abuse liability and are weaker analgesics (except for inflammatory pain). The nonsteroidal anti-inflammatory drugs (NSAIDs) and antipyretic analgesics are a class of drugs that have analgesic, antipyretic and anti-inflammatory actions in different measures. In contrast to morphine, they do not depress CNS, do not produce physical dependence, have no abuse liability and are particularly effective in inflammatory pain. They are also called nonnarcotic, nonopioid or aspirin-like analgesics. They act

primarily on peripheral pain mechanisms, but also in the CNS to raise pain threshold.

CLASSIFICATION

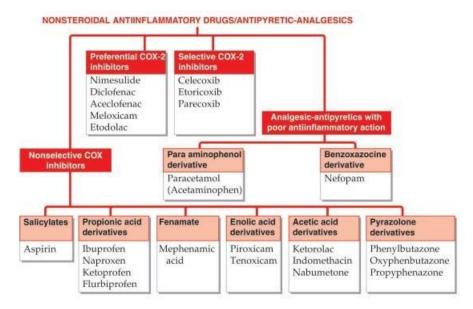


Fig. No. 1.

Diclofenac

An analgesicanti-pyreticanti-inflammatory drug, similar in efficacy to naproxen. It inhibits PG synthesis and is somewhat COX-2 selective. The antiplatelet action is not appreciable due to sparing of COX-1, and the cardio protective effect of low dose aspirin is not blocked. Neutrophil chemotaxis and superoxide production at the inflammatory site are reduced. Diclofenac is well absorbed orally, 99% protein bound, metabolized and excreted both in urine and bile. The plasma t½ is ~2 hours. However, it has good tissue penetrability and concentration in synovial fluid is maintained for 3 times longer period than in plasma, exerting extended therapeutic actionin joints.

SYNTHESIS

An intensified six-step continuous flow synthesis of diclofenac sodium from aniline and chloroacetic acid was developed by using a challenging and unprecedented etherification/Smiles rearrangement cascade as the key step in two types of flow reactors. The total isolated yield of diclofenac sodium was up to 63 % with an average yield of above 90 % for each step within a total residence time of 205 min.

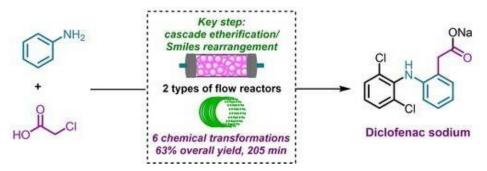


Fig. No. 2: Synthesis of Diclofenac sodium.

Mechanism of Action

The exact mechanism of action is not entirely known, but it is thought that the primary mechanism responsible for its anti-inflammatory, antipyretic, and analgesic action is inhibition of prostaglandin synthesis by inhibition of cyclooxygenase (COX). It also appears to exhibit bacteriostatic activity by inhibiting bacterial DNA synthesis. Inhibition of COX also decreases prostaglandins in the epithelium of the stomach, making it more sensitive to corrosion by gastric acid. This is also the main side-effect of diclofenac.

Pharmacokinetic profile

Absorption: Diclofenac is completely absorbed after their passage through the stomach.

Distribution: 99.7% of Diclofenac is bound to serum proteins mainly to albumin (99.4%). Diclofenac enters the synovial fluid, where peak concentrations are measured 2.4 hrs after the peak plasma levels have been reached.

Half-life: 1.0 - 2.0 hours.

Metabolism: Biotransformation of Diclofenac takes place by glucuronidation partly of the intact molecule, but mainly by glucuronidation after single and multiple hydroxylation.

Excretion: 60% of the drug excreted via kidney as metabolites, less than 1.0% excreted unchanged in urine.

Therapeutic uses: For the treatment of rheumatoid arthritis, osteoarthritis and as analgesic.

Contraindication: Peptic ulcer, known hypersensitivity reaction to the Diclofenac sodium. Like other non-steroidal anti-inflammatory agents, Diclofenac is contraindicated patients in whom attacks of asthma, urticaria or acute rhinitis have been precipitated by acetylsalicylic acid or other prostaglandin-synthetase inhibitors.

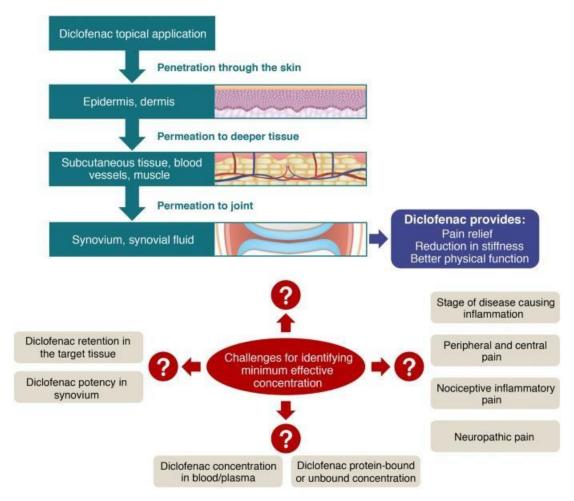


Fig. No. 3: Mechanism of action of gel.

The skin became popular as a potential site for systemic drug delivery because it was thought

□ Avoid the problems of stomach emptying, pH effects, and enzyme deactivation.
 □ associated with gastrointestinal passage To avoid hepatic first-pass metabolism.
 □ To enable control of input, as exemplified by termination of delivery through removal of the device.
 □ Delivery of solutes through the skin is associated with various difficulties, such as.
 □ The variability in percutaneous absorption owing to site, disease, age, and species differences.
 □ The skin's __first-pass' metabolic effect.
 □ The reservoir capacity of the skin.
 □ Irritation and other toxicity caused by topical products.

Heterogeneity and indelibility of the skin in both turnover and metabolism.

Inadequate definition of bioequivalence criteria.

☐ An incomplete understanding of the technologies that may be used to facilitate or retard percutaneous absorption.

DISCRIPTION

GROSS STRUCTURE AND FUNCTION OF THE SKIN

It needs to be emphasized that the protection, homeostatic, and sensing functions of the skin are both overlapping and integrated. For instance, barrier properties to a chemical entity involves resistance to its entry (barrier provided by stratum corneum), metabolism for that proportion of entity bypassing the stratum corneum (in viable epidermis), sensing of and attention to damage caused by entry (inflammatory mediator release in epidermis, with involvement of dermis), and removal of entity from site by dermal blood supply and distribution into those body organs specifically responsible for elimination of the entity by metabolism (liver) and excretion (kidney). Heat regulation occurs through the use of the subcutaneous fat pad, physiological regulation of blood flow to affect, for instance, heat loss by vasodilatation, and cooling by perspiration.

The skin is the largest organ of the body, accounting for more than 10% of body mass, and the one that enables the body to interact most intimately with its environment. The skin consists of four layers: the stratum corneum (nonviable epidermis), the remaining layers of the epidermis (viable epidermis), dermis, and subcutaneous tissues. There are also several associated appendages: hair follicles sweat ducts, apocrine glands, and nails.

Many agents are applied to the skin either deliberately or accidentally, with either beneficial or deleterious outcomes and the mechanism was showed in Fig-4. The use of topical products was evident in ancient times, and there are reports of systemic benefits of topical anti-infective and hormonal agents in the 1940s. Modern transdermal patch technology was introduced in the late 1970s. The main interests in dermal absorption assessment are in the application of compounds to the skin.

For local effects in dermatology (e.g., corticosteroids for dermatitis).
For transport through the skin for systemic effects (e.g., nicotine patches for smoking
cessation).
For surface effects (e.g., sunscreens, cosmetics, and anti-infective); To target deeper
tissues (e.g., Non-steroidal anti-inflammatory agents [NSAIDs] for muscle inflammation).
Unwanted absorption (e.g., solvents in the workplace, agricultural chemicals, or
allergens).

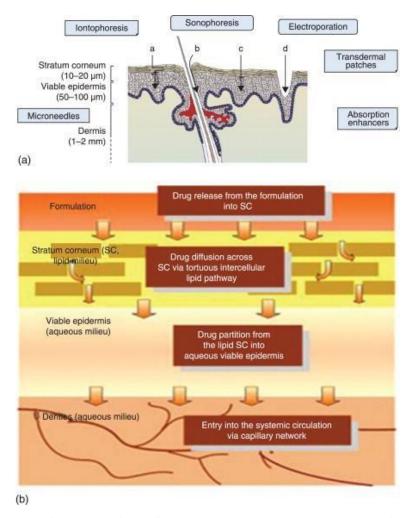


Fig. No. 4: Mechanism of drug through by transdermal delivery.

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A. The Epidermis

The epidermis performs a number of functions, as shown in Fig. 5, one of the most important being the generation of the stratum corneum. The stratum corneum is the heterogeneous outermost layer of the epidermis and is approximately 10-20 _m thick. It is nonviable epidermis and consists, in a given cross-section, of 15–25 flattened, stacked, hexagonal, and cornified cells embedded in a mortar of intercellular lipid. Each cell is approximately 40 mm in diameter and 0.5 mm thick. The thickness varies, however, and may be a magnitude of order larger in areas such as the palms of the hand and soles of the feet, areas of the body associated with frequent direct and substantial physical interaction with the physical environment. Each stratum corneum cell is composed mainly of insoluble bundled keratins (_70%) and lipid (_20%) encased in a cell envelope, accounting for about 5% of the stratum corneum weight. The intercellular region consists mainly of lipids and desmosomes for coenocyte cohesion. The barrier function is further facilitated by the continuous desquamation of this horny layer with a total turnover of the stratum corneum occurring once every 2-3 weeks. The cells of the stratum corneum originate in the viable epidermis and undergo many morphological changes before desquamation. Thus, the epidermis consists of several cell strata at varying levels of differentiation. The origins of the cells of the epidermis lie in the basal lamina between the dermis and viable epidermis. In this layer there are melanocytes, Langerhans cells, and two major keratitis cell types: the first functioning as stem cells having the capacity to divide and produce new cells; the second servingto anchor the epidermis to the basement membrane.

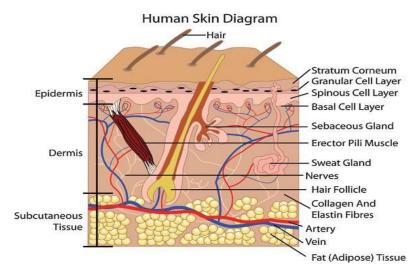
The basement membrane is 50–70 nm thick and consists of two layers—the lamina dense and lamina Lucida—which comprise mainly proteins, such as type IV collagen, laminin, nidogen, and fibronectin. Type IV collagen is responsible for the mechanical stability of the basement membrane, whereas laminin and fibronectin are involved with the attachment between the basement membrane and the basal keratinocytes.

B. The Dermis

In Fig. 4 the dermis, a critical component of the body, not only provides the nutritive, immune, and other support systems for the epidermis, through a thin papillary layer adjacent to the epidermis, but also plays a role in temperature, pressure, and pain regulation. The main structural component of the dermis is referred to as a coarse reticular layer. The dermis is about 0.1-0.5 cm thick and consists of collagenous fibers (70%), providing a scaffold of support and cushioning, and elastic connective tissue, providing elasticity, in a semi gel matrix of muco-polysaccharides. In general, the dermis has a sparse cell population. The main cells present are the fibroblasts, which produce the connective tissue components of collagen, laminin, fibronectin, and vitronectin; mast cells, which are involved in the immune and inflammatory responses; and melanocytes involved in the production of the pigment melanin. Contained within the dermis is an extensive vascular network providing for the skin nutrition, repair, and immune responses and, for the rest of the body, heat exchange, immune response, and thermal regulation. The bloodflow rate to the skin is about 0.05 mL min_1cc_3 of skin, providing a vascular exchange area equivalent to that of the skin surface area. Skin blood vessels derive from those in the subcutaneous tissues, with an arterial network supplying the papillary layer, the hair follicles, the sweat and apocrine glands, the subcutaneous area, as well as the dermis itself. These arteries feed into arterioles, capillaries, venules, and, thence, into veins. Of particular importance in this vascular network is the presence of arterio venous anastomoses at all levels in the skin.

The lymphatic system is an important component of the skin in regulating its interstitial pressure, mobilization of defense mechanisms, and in waste removal. It exists as a dense, flat meshwork in the papillary layers of the dermis and extends into the deeper regions of the dermis. Also present in the dermis are a number of different types of nerve fibers supplying

the skin, including those for pressure, pain, and temperature.



Feg. No. 5: T. S. of the Skin.

C. The Sub-cutis

Fig. 5 shows the deepest layer of the skin is the subcutaneous tissue or hypodermis. The hypodermis acts as a heat insulator, a shock absorber, and an energy storage region. This layer is a network of fat cells arranged in lobules and linked to the dermis by interconnecting collagen and elastin fibers. As well as fat cells (possibly 50% of the body 's fat), the other main cells in the hypodermis are fibroblasts and macrophages. One of the major roles of the hypodermis is to carry the vascular and neural systems for the skin. It also anchors the skin to underlying muscle. Fibroblasts and adipocytes can be stimulated by the accumulation of interstitial and lymphatic fluid within the skin and subcutaneous tissue.

D. Skin Appendages

There are four skin appendages: the hair follicles with their associated sebaceous glands, eccrine sweat glands, apocrine sweat glands, and the nails showed in Fig.

		Appendages		
Parameter	Hair follicle and sebaceous gland	Eccrine gland	Apocrine gland	Nails
Function	Protection (hair) and lubrication (serum)	Cooling	Vestigial secondary sex gland	Protection
Distribution	Most of the body	Most of the body	Axillae, nipples, anogenetal	Ends of fingers and toes
Average/Cm ²	57-100	100-200	Variable	-
Fractional area	2.7×10 ³	10-4	Variable	-
Secretions	Sebum	Sweat (dilute saline)	"Milk" protein, lipoproteins, lipid	-
Secretions stimulated By	Heat (minor)	Heat, cholinergic	Heat	-
Biochemical innervation of gland response	-	Cholinergic	Cholinergic	-
Control	Hormonal	Sympathetic nerves	Sympathetic nerves	-

Fig. No. 6: Appendages of the Skin.

Adverse drug reactions

Gastrointestinal tract: Epigastric pain, other gastrointestinal symptoms, e.g., nausea, vomiting, diarrhea, abdominal cramps, dyspepsia, flatulence, anorexia, gastrointestinal bleeding, haematemesis, melaena, peptic ulcer with or without bleeding or perforation, bloody diarrhea, lower gut disorders leg. Nonspecific hemorrhagic colitis and exacerbation of ulcerative colitis or Crohn's disease); aphthous stomatitis, glossitis, oesophageal lesions, constipation.

Central (and peripheral) nervous system: Headache, dizziness or vertigo.

Skin: Skin rash, urticaria. Kidney: Isolated cases: Acute renal failure, hematuria, proteinuria, interstitial nephritis, nephrotic syndrome, papillary necrosis.

Liver: Elevated serum aminotransferases (SGOT, SGPT).

Hypersensitivity reactions: Hypersensitivity reactions, e.g., asthma, systemic anaphylactic / anaphylactoid reactions (including hypotension).

Drug interaction: Lithium / digoxin: Diclofenac may raise plasma concentrations of lithium or digoxin when given together with preparations containing these substances.

Diuretics: Some nonsteroidal anti-inflammatory agents can inhibit the effect of diuretics. Concomitant treatment with potassium-sparing diuretics may raise serum potassium levels whichshould therefore be monitored.

NSAIDs: Concomitant administration of various systemic nonsteroidal anti-inflammatory drugs may increase the frequency of adverse effects.

Anticoagulants: Although no evidence appear to suggest that Diclofenac affects the action of anticoagulants, an increased risk of hemorrhage in patients receiving Diclofenac and anticoagulants concomitantly has been reported in isolated cases. It is therefore advisable to monitor such patients carefully. Like other non-steroidal ant rheumatic agents, Diclofenac may temporarily inhibit platelet aggregation when given in high doses (200 mg).

DRUG PROFILE

Classification: NASID

Chemical Structure

Other name: 2-[(2,6- Dichlorophenyl) amino] benzeneacetic acid sodium salt.

Route of administration: Mouth, rectal, intravenous, intravascul, Topical.

Metabolism: Liver (CYP2CI19 and possibly CYP3A).

Excretion: Urine, sweat, saliva, feces.

Molecular formula: C14H10Cl2NNaO2.

Molecularweight: 318.13-mol-1.

Solubility: 14.2 mg/ml.

Melting range: 279-289°C

Density: 0.55 to 0.7g/mL.

Protein binding: 80-90%

Bioavailability: 80-100%

Half-life: 1-2 hour.

Solubility

S.NO	SOLVENT	SOLUBILITY
1	Water	Insoluble
2	Chloroform	Freely soluble
3	Ethanol	Soluble
4	HCL	Insoluble
5	NaOH	Soluble

PROMOTION STREATEGIES OF RASINAC PLUS GEL

Promotional strategy is a method used by companies to advertise, promote & sell their goods. A company chooses its promotional strategy based on factors like product type, marketing budget, target audience etc. It is a critical activity to increase product awareness & thereby increase sales. An effective promotional strategy gets more revenue as compared to the marketing spend.

Importance of Promotional Strategy

Promotion for any product or service is essential for any company. It is because only through promotion people would come to know about the product. Only after knowing about the product they consider purchasing. Since there are some many companies & brands competing to sell their products to the same set of customers, advertising & promotion are important tools to ensure each brand is differentiated & identified.

Promotional Strategy Types

All the promotional strategies can be classified under two categories – Push and Pull.

1. Push strategy

In push strategy promotional activities are done for the distributors, wholesalers and retailers to push the product to the consumers. Trade fairs, wholesaler discounts, bonus and all the activities which benefit the distributors are all examples of push strategies. Hence the demand

is pushed orcreated in the distribution channel. These activities are not visible to consumers and hence it is mostly unknown to the customers.

So when one goes to a mobile store to buy a new phone and the shopkeeper urges and shows only Samsung phones, it is push marketing and the shopkeeper is getting more margin on selling Samsung phone than any other brand.

2. Pull Strategy

In pull strategy promotional activities are done for the consumers. Advertisements, digital campaigns, discounts in stores etc are some examples of pull strategy. Hence demand is created in the consumers which in turn go to the retail stores or e-commerce websites to buy these products. These activities are visible to all the customers.

When a customer goes with a specific brand and product in his mind to the market, it is the pull strategy that has worked for the company.

12 Others Types of marketing promotion strategies, with examples

There are lots of ways to promote a product. If you're looking for inspiration, we've laid out 12 different types of promotion strategies below.

1. Paid advertising

Paid advertising is often the first type of promotion that comes to mind. This straightforward strategy involves paying to show an advertisement in a specific place at a specific time, so you can capture the attention of your target market. It's a great way to build brand awareness and introduce your brand to people who may not have heard of it before.

110	re are some examples of paid advertising
	Television ads
	Radio ads
	Newspaper and magazine ads
	Billboards
	Online display ads (for example, through Google or social media).

Here are some examples of noid advertising

2. Content marketing

Content marketing is a common type of digital promotion strategy, focused on distributing valuable content in order to attract and retain an audience. The idea behind content marketing

is this: It associates your brand with useful, relevant content that helps customers solve issues—building trust over time and ultimately encouraging customers to buy your products. Content marketing is a great promotional tool for any company, but it's especially helpful for businesses with longer sales cycles, like B2B and SaaS companies. For these companies, content marketing helps provide enough customer education for buyers to make informed purchase decisions.

Content marketing comes in many forms, including

Blog posts
Videos
Social media posts
Email newsletters
Podcasts
Whitepapers or reports
Content created to improve SEO (search engine optimization)

3. Sponsorships

Sponsorships involve aligning your company with another brand—like an event, TV program, charity, or even a celebrity. For example, Pepsi routinely sponsors the Super Bowl, while Red Bull sponsors NASCAR and extreme athletes of all kinds. Nowadays, sponsorships often include social media influencer marketing—creating partnerships with individuals who became famous through social media platforms like Instagram or Youtube.

The goal of a sponsorship is to boost your brand's public image and credibility. Aligning yourself with another brand can drive media exposure, improve public relations, and expand your audience—plus make you stand out from the competition.

4. Email marketing

Email marketing helps you connect with your target audience via—you guessed it—email. You can send emails to any subscribers on your mailing list—whether they're potential customers, loyal customers, or something in between. For example, you can collect email addresses from potential customers by offering free products or services in exchange for their information.

Th	ere are lots of things you can send via email, including
	Newsletters and exclusive content
	Information about product releases
	Special deals and coupons.

5. Retargeting

Retargeting focuses on customers (or potential customers) with high purchase intent. In other words, it involves targeting segments of your customer base who've already made it down to the bottom of the marketing funnel. Prioritizing retargeting can help you get a high return on your investment, since this audience is already primed and ready to buy.

For example, retargeting could include

Sending reminder emails to customers who filled up an online shopping cart but didn't
check out.
Showing targeted advertisements to customers who purchased your products in the past.
Sending nurture emails to people who purchased something a while ago but haven't been

6. Referral marketing

back.

Referral marketing is when you get customers to tell their friends about your brand. Also known as word-of-mouth marketing, referral marketing happens organically when you have a great product—but you can also speed it along with special deals and incentives for customers who refer their connections.

Referral marketing is a powerful strategy because it's virtually free. And since people tend to trust their friends, referred customers are more likely to actually purchase your product than someone who just sees an ad. For example, Dropbox used referral marketing to permanently increase signups by 60 percent—eventually growing into a multi-billion dollar startup.

7. Event marketing

Event marketing involves participating in, sponsoring, or hosting events in order to promote yourbrand or product. This strategy helps you connect and engage with customers first-hand, so they can get a real sense of your product and what your brand represents. Not only that, but events canhelp you build your brand presence, generate leads, and generate goodwill with

customers.

Event marketing comes in many forms, including

Conferences
Trade shows
Seminars and classes
Webinars
Virtual events
Live streaming events
Community events.

8. Special Causes

Aligning your brand with a special cause makes customers feel like they're part of something bigger. They're not just helping themselves by purchasing your products—they're also helping make the world a better place. This can help boost brand loyalty and give customers a reason to choose your brand over competitors.

The clothing company Patagonia is a great example of this. By promoting their sustainable manufacturing processes, Patagonia attracts and retains customers who believe in environmental preservation.

9. Customer reviews

Customer reviews are one of the most powerful marketing tools out there. Brands like Amazon, Yelp, and TripAdvisor built their businesses out of reviews—generating trust by promoting customer feedback. The beauty of this strategy is that it encourages customers to promote your brand for you. And as long as you have a high-quality product (and positive reviews), this type of user generated content can go a long way in convincing potential customers to purchase.

Collecting customer reviews often happens organically, but you can speed it along by specifically requesting reviews from current customers via email or website banners. Some newer brands also seed reviews by sending products to customers in exchange for their honest feedback.

10. Customer loyalty programs

Customer loyalty programs reward people who repeatedly interact with your brand. It's a way

to keep customers coming back by offering deals, discounts, and exclusive product launches. The more customers purchase from your company, the more perks they earn. For example, the beauty company Sephora promotes a loyalty program that offers discounts and gifts to customers who spend a certain amount.

Loyalty programs don't just boost customer retention—they also help convince potential buyers to choose your brand over competitors. By promoting loyalty programs, you demonstrate ways customers can save money and get more bang from their buck over time.

11. Free samples, giveaways, and trials

Everyone loves free stuff. Giving away samples of your product can help promote customer satisfaction and make customers feel like they're getting a great deal. But most importantly, free samples and trials give potential customers first-hand experience with your product—and therefore the confidence to actually buy it later on.

SALES PROMOTION TOOLS

Now the question to be studied in the techniques adopted by the industry tor sales promotion of the drugs produced. Sales promotion is vital in its importance and is international in character in each and every industry and, therefore, the pharmaceutical industry alone cannot be accepted as an exception. r r The competition has been causing a great inconvenience for the manufacturers to promote their sales. To face the trial of ability each pharmaceutical company is engaged in using sales promotion techniques of v^arious types to sell more and more to get ahead of the other.

The various sales promotion techniques adopted by the industry are

A. Consumer/Prescriber Promotion;

- 1. Persuassive detailing through Medical Representatives.
- 2. Product sampling.
- 3. Direct mail.
- 4. Literature/handouts.
- 5. Advertising in medical journals.
- 6. Scientific films.
- 7. Miscellaneous
- (a) Clinical trials at hospital level
- (b) Participation in medical exhibition

- (c) Follow-up letters/pictures, post cards
- (d) Free gi'fts""
- (e) Audo-visuals.

B. Sales Force Promotion

- 1. Field Staff commission
- 2. Sales force contest
- 3. Sales meeting 4. Scientific seminars.

C. Trade Promotion

- 1. Bonus scheme
- 2. Discounts
- 3. Dealers listed promotion (quality rebate schemes, price reduction).

SALES PROMOTION

The simplest and perhaps most dynamic definition of sale promotion is made up of only two words 'Promoting sales" In other words, any method utilized to tell customers about the three elements of marketing mix

Product - Products distinctive want satisfying characteristicsPlace - Its availability Price - How much

In Pharmaceutical industry, there are basically two kinds of sales promotion viz.

- (a) Commercial sales promotion through dealers,
- (b) Direct consumer stimulation (Scientific promotion) The basic essential elements of drug promotion in a very special are dedicated to inform and to educate the masses. The aim of drug promotion is communication between the ethicinal drug houses and the doctors. In pharmaceutical industry almost- every leading firm is having a separate sales promotion department under the marketing division. It is thought to be regarded as one of the most important department for constructive efforts and creative selling. The variety of task delegated to it and its need for that it is to be clothed with ample authority and responsibility. Who is to train the selling force and plan their creative selling programmes? Who is to work Vtith the distributors and dealers and help them in organisational operation? Who is to help them in window displays?

Another important area to be covered 'by the sales promotion department is the stimulation of

consxamers/prescribers. Beyond the scope of personal selling and regular advertising is the employment of premiums, contests, samples, literature, mailing etc. This department also plays an important role in educating consumer in the proper use of drugs. Furthermore, selling andadvertising must be coordinated. Advertising port-folio must b^-prepared, but they are worthless unless the medical representatives are taught how to use them. Comprehensive marketing programme today call for the employment of every possible techniques for moving drugs very fast to the consumer. How to communicate effectively depends upon the creative promotional strategy adopted by different pharmaceutical houses such as setting up store displays, holding trade shows and exhibitions, using samples as premiums, packing of the product, price of the product, brand names etc.

Promotional Strategy

This is the most vital area of marketing in pharmaceutical products and a company can afford to neglect it only at grave risks to the survival of its business. The heaviest burden for promotion falls on personal selling, aided by sales promotion and sales incentives techniques. The role of advertising is mostly in the nature of public relations while publicity has some importance regarding research oriented products.

Sales Promotion in Pharmaceuticals

Sales promotion is the nucleus of any pharmaceutical industry, on which the whole industry is based. Many companies have separate sales promotion department or product manager to look after the sales promotion. The sales promotion done for pharmaceutical depends upon the nature of the product. It differs from product to product and from company to company. There are various techniques by which this function is operated. Since Pharmaceuticals have two types of product

- 1. Ethical products
- 2. Non-ethical products

Sales promotion of non-ethical products are those for which the prescriptions of the doctor is not required and these products are generally advertised freely. The techniques of salesi: promotion is done at various levels i.e. at the retailer or at the stockist level. These products are generally promoted through advertising.

- (a) By Press Advertising
- (b) Advertising on Radio or T.V,
- (c) Window display at chemists shop

(d) Hoarding at busy and common spot.

Their sales promotion is very similar to consumer goods.

Sales Promotion of Ethical Products: Ethical products are said to be those for which a doctor's prescription is required without the recommendation of the doctor, they cannot be purchased. These include antihypersensitive, antidiabetic etc.

COMPETETIVE PRODUCT OF RESINAC PLUS GEL

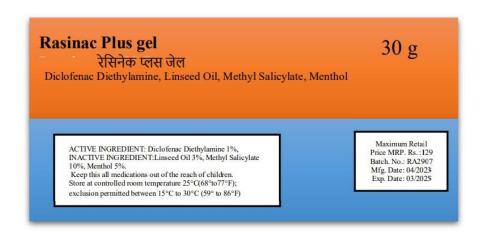
BRAND NAME	COMPOSITION	MANUFACTURER	PACKING	MRP (Rs.)
Volini	Diclofenac diethylamine, Linseed oil, methylsalicylate and menthol gel	Sun Pharma	30g	130
Dicllos	Diclofenac diethylamine, Linseed oil, methylsalicylate and menthol gel	Galety skin care	30g	75
Sumo	Diclofenac diethylamine, Linseed oil, methyl salicylate andmenthol gel	Alkem Laboratories Ltd.	30g	66
Intagesic	Diclofenac diethylamine, Linseed oil, methylsalicylate and menthol gel	Intas labs	30g	93
Omnigel	Diclofenac diethylamine, Linseed oil, methyl salicylate andmenthol gel	Cipla Ltd.	10g	54
Dubinor	Diclofenac diethylamine, Linseed oil, methylsalicylate and menthol gel	Glenmark Pharmaceuticals Pvt. Ltd.	30g	235
Rapid gel	Diclofenac diethylamine, Linseed oil, methyl salicylate andmenthol gel	Micro Labs Ltd.	30g	103
Vovenor	Diclofenac diethylamine, Linseed oil, methylsalicylate and menthol gel	Novartis India Ltd.	30g	137
Vivo gel	Diclofenac diethylamine, Linseed oil, methyl salicylate andmenthol gel	Sygnus Biotech.	50g	148
Truthon	Diclofenac diethylamine, Linseed oil, methylsalicylate and menthol gel	The healthier Pvt. Ltd	55g	199
Diclowin	Diclofenac diethylamine, Linseed oil, methyl salicylate andmenthol gel	PharmaceuticalsPvt. Ltd.	35g	110

MARKETING STRATEGY OF RESINAC PLUS GEL

My marketing strategy of RESINAC PLUS GEL are mentioned below

- (1) Making attractive label of RESINAC PLUS GEL
- (2) Making unique Packaging OF RESINAC PLUS GEL.
- (3) Making Drug leaflet which provide all information about RESINAC PLUS GEL.
- (4) Making simple and clear visual aid understanding for physician about RESINAC PLUS GELLABEL

LEBEL



PACKAGING



LEAFLET (MARKET STREATEGIES)

NAME- RASINAC PLUS GEL(30Gm)

Composition

Linseed oil BP......3.0% w/w

Read all of this leaflet carefully before you start using this medicinebecause it contains important information for you

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you only. Do not passit on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

- 1. What Diclofenac 1% Gel is and what it is used for
- 2. What you need to know before you use Diclofenac 1% Gel
- 3. How to use Diclofenac 1% Gel
- 4. Possible side effects
- 5. How to store Diclofenac 1% Gel
- 6. Contents of the pack and other information 1. What Diclofenac 1% Gelis and what it is used for.

This medicine is a gel containing 10 mg of diclofenac for each gram of gel. Diclofenac is a phenylacetic acid derivative. It leads to inhibition of cyclooxygenase activity, which, then, leads to the inhibition of prostaglandin synthesis and other inflammation mediators.

Diclofenac acts as an anti-inflammatory and analgesic agent in thetreatment of

- Mild to moderate muscle pains
- Contusions
- Post-traumatic pain. Diclofenac 1% Gel is intended for adults and adolescents aged 14 years and over. 2. What you need to know before youuse Diclofenac 1%.

Gel DO NOT use this medicine

- If you are allergic to diclofenac or any of the other ingredients of thismedicine (listed in section 6).
- If you are hypersensitive to acetylsalicylic acid or to other non-steroidal antiinflammatory drugs (NSAIDs), which may arise as asthma, urticaria orother allergic reactions.
- For children under 14 years of age.
- Are in the last 3 months of your pregnancy (see also "Pregnancy andbreast-feeding")
- If you have kidney failure.

Warnings and precautions

It is important to know that the occurrence of systemic side effects with thetopical use of diclofenac is low when compared with the frequency of side effects with the oral use of diclofenac.

As there is a possibility of this medicine cutaneous absorption, it is not possible to exclude the occurrence of systemic effects. The risk of the occurrence of these effects depends, among other factors, on the exposed surface, applied quantity and exposure time.

Cutaneous safety of NSAIDs: It has been reported, very rarely, serious skin reactions, some of them fatal, including exfoliative dermatitis, Stevens- Johnson syndrome and toxic epidermal necrolysis, associated with the administration of NSAIDs. Apparently the risk of occurrence of these reactions is greater at the beginning of treatment, and in most cases these reactions are manifested during the first month of treatment. This medicine should be discontinued at the first signs of rash, mucosal lesions or other manifestations of hypersensitivity.

This medicine can only be applied on healthy skin (do not apply on open wounds). This medicine cannot come in contact with conjunctive tissue or mucous membranes (for example in mouth). It cannot be ingested. The area treated with this medicine should not be exposed to sunlight.

Other medicines and Diclofenac 1% Gel

Tell your doctor or pharmacist if you are using, have recently used or mightuse any other medicines.

This medicine may decrease the effectiveness of diuretics and other antihypertensive medicines, such as Angiotensin Converting Enzyme Inhibitors (ACE inhibitors) and Angiotensin II Antagonists (AAII): - especially when Diclofenac gel is used on large areas of skin and/or for prolonged periods. In some patients with impaired renal function (for example, dehydrated patients or elderly with impaired renal function) the co- administration of an ACE inhibitor or AAII and cyclooxygenase inhibitors may result in the progression of the renal function deterioration, including the possibility of acute renal failure, which is usually reversible. Patients should be properly hydrated.

Since systemic absorption of diclofenac from a topical application is verylow such interactions are very unlikely.

Diclofenac 1% Gel with food and drink

There are no known interactions of this medicine with food and/ordrinks.

Pregnancy and breast-feeding

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor or pharmacist for advice beforetaking this medicine.

Pregnancy

This medicine must not be used during the last 3 months of pregnancy, as it ould harm your unborn child or cause problems at delivery. Diclofenac 1% Gel should only be used under medical advice during the first 6 months of pregnancy and the dose should be kept as low and duration of treatment as short as possible. Breast-feeding.

This medicine passes into breast milk in small amounts. However, this medicine should not be applied on the breasts of nursing mothers nor elsewhere on large areas of skin or for a prolonged period of time.

Consult your doctor or pharmacist for further information if you are pregnant or breastfeeding.

Driving and using machines

This medicine does not affect the ability to drive or use machines. Diclofenac 1% Gel contains propylhydroxybenzoate, methylhydroxybenzoate and propylene glycol This medicine contains methylhydroxybenzoate propylhydroxybenzoate (E216) and (E218), which may cause allergic reactions, possibly delayed.

This medicine also contains propylene glycol which may cause skinirritation.

3. How to use Diclofenac 1% Gel

Always use this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure. Use in adults and adolescents aged 14 years and over Apply thin layers of this medicine in the affected area, 3 to 4 times daily according to the need of the situation (2-4g, quantity as big as a cherry or a walnut) and rub gently. The treatment duration depends on the indications and on the response to the treatment. It is recommended that the treatment should be evaluated 7 days after its start.

In adolescents aged 14 years and over, if this product is required for more than 7 days for pain relief or if the symptoms worsen the patients/parents of the adolescent is/are advised to consult a doctor.

Diclofenac 1% Gel can be used as additional treatment with the oraladministration of non-steroidal anti-inflammatory drugs.

Use in children under the age of 14 years This medicine must not be used in children under the age of 14 years, since there are no data on the safety and efficacy in this group of patients (see section 2 DO NOT use Diclofenac 1%Gel).

Patients with liver or kidney insufficiency No dosage adjustment is necessary in these patients. Elderly.

The usual adult dosage may be used.

Method of administration

Apply on healthy skin only.

After application, wash your hands, unless these are being treated. In case of accidental contact with Diclofenac 1% Gel Do not apply this medicine to injured or infected skin. In case of accidental contact with eyes, mucous membranes (for example mouth) or areas of injured skin, rinse the affected area with running water. If the irritation persists, contact your doctor or pharmacist. In case of accidental or deliberate intake of this medicine Immediately go to a hospital where the adequate therapeutic measures should be implemented. Take the package and the tube with you.

If you use more Diclofenac 1% Gel than you should Diclofenac is very poorly absorbed into the bloodstream and thus the overdose with topical use is unlikely.

If you or a child accidentally swallows this medicine contact your doctor, pharmacist or hospital immediately.

If you forget to use Diclofenac 1% GelDo not worry if, occasionally, youforget to apply this medicine. In these situations, continue with the applications normally, at the usual time.

If you stop using Diclofenac 1% Gel The treatment can be stopped at any time, without requiring special care. However, you may feel again pain or swelling in the affected area. If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects Like all medicines, this medicine can cause sideeffects, although not everybody gets them.

You should immediately stop the treatment with this medicine and contact your doctor immediately if you notice the following side effects (may affect up to 1 in 10,000 people)

- Skin disorder (eczema)
- Reddening of the skin (erythema)
- Inflammation of the skin in the area of the application that is manifested by rash, swelling or papules (dermatitis, contact dermatitis)
- Itching of the skin (pruritus).

Rare (may affect up to 1 in 1,000 people)

- Extensive changes in the skin with the appearance of redness, scaling, and large bubbles (bullous dermatitis) Very rare (may affect up to 1 in 10,000 people)
- Skin rash with pus-filled blisters (rash pustular)
- Increased sensitivity of the skin to sun light (photosensitivity reaction) Not known (frequency cannot be estimated from the available data).
- Burning sensation at the application site.
- Dry skin Prolonged use of this medicine in a relatively large area can cause sideeffects in other areas of the body beyond the skin, such as
- Nausea
- Vomiting
- Diarrhea

- Stomach pain.
- Storage- Store below 25°C Do Not freeze For Feedback contact us



R.R PHARMACEUTICAL Pvt. Ltd.

- Faizabad road Lucknow UP 226028 Toll free NO.
- 8299272071,639099800
- Email: feedback@rrpharmaceutical.ac.in
- Website: www.rrpharmaceutical.com

PROMOTION STRATEGY OF Rasinac Plus Gel

The sales promotion of these products is done by various methods

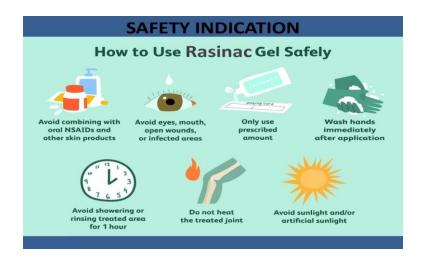
- 1. Direct Mailing Literature to the Doctors: l-'his is generally done when a new product is launched or some important improvement or development or change in price occurs on the productavailable.
- **2. Advertising in Professional Journals:** This advertising is done with the medical journals published from different places and souvenir published different medical associations.
- **3. Visits of Medical Detailmen or Representatives to the Doctor:** In every month or quarter a year the company's medical representative visits the doctors with literatures and some samples of the drug. There, the Medical Representative reminds to the doctors about the products of his company.
- **4. Arranging Medical Film Show and Exhibition:** Generally to launch a research product developed by the company or to overcome the competition when company is loosing share of its products in the market.
- 5. Publishing of information of Medical Journals by the Pharmaceutical Companies: Presently many of the pharmaceutical companies have started publishing their own monthly magazines which gives the information and the latest report. Itinformation and the latest

report. It also gives the information about the company's existing.

- **6. Presenting Novelties:** Like desk calender, prescription pads and compliments which serve as a reminder to the customer/doctor. This is the most important tool of pharmaceutical industry on which presently it is based.
- 7. Literature/Visual Aid: These literatures of the company provide full information' about the product including pharmacological arid clinical. The literature also explains the dosage details, indications, contraindications, precautions etc.









- **8.** Samples: Samples of a product contains the original product but in small quantities or packing. These samples are provided to a medical representative for the doctors so. that they can try them on the' patients. But due to the increasing competitions and entry of new firms, sometimes samplesare misused or mishandled.
- **9. Novelties Items:** This has become very common in this industry. Every second company

now- a-days has adopted the policy of providing some complimentaries/gifts to the doctors. These gifts are generally pen, calendars, thermometer, diary, prescribing pad, pen stand etc.

- **10. Up to Date Information/Data:** These days companies provide the medical representative with the latest published reports in India and abroad regarding his products and competitive products.
- 11. Detailing: The representatives presentation of his products is normally referred to as 'Detailing' there has been a noticeable shift in the pattern of detailing in recent years. Previously, detailing mostly tried to emphasise the technical superiority of the product. Today, very few products can claim exclusive advantage over the competitive products available. Therefore, the emphasis is now shifting to detail products related to the benefits a patient would get with the use of a brand.
- **12.** E-detailing E-detailing, electronic detailing, is a now well-established way of increasing pharmaceutical and medtech company efficiency in customer engagement and enable a better service to be delivered to healthcare professionals (HCPs) and other stakeholders.

CONCLUSION

In the end it can be concluded that the medical representative being a most effective tool of 'Sales Promotion' should develop a new habit of planning for creative selling through social contacts with doctors, pharmacists, nurses and other connected medical personnel. The importance of sound personal relationship between the doctors and the medical representatives to encourage the prescription of the drugs is surely pregnant with fruitful results. The success of the firms Sales Promotion equally depends upon the services provided by the medical profession. Medical representatives supplemented with other sales promotion tools and the different members of a single medical community are the two eyes through which we can visualise the success of the Sales Promotion strategy.

Further, it can be concluded that while advertising can pre-sell a product, sales promotion is the real sales clincher. Modern sales promotion techniques are more varied and complex. The aim of every competitive firm is to sell more and more to get ahead of the others. If we want not only to maintain but to progress further in this highly competitive, ridden with government controls field of pharmaceuticals, we should use all of the tools of sales promotion more effectively and efficiently.

With the advancement of medical facilities and spread of education with ever increasing population, more and more patients would need consultation and advices of the doctors, which would mean more potential prescription from the doctors to the chemists. One must, therefore takecognizance of the situation and derive maximum advantage- of the prescription potential by meeting the needs of the consumers in a well planned way. To sum up then, we can say that marketing is a battle half won through adequate promotional efforts. Sales Promotion being the crux of this industry.

REFERENCE

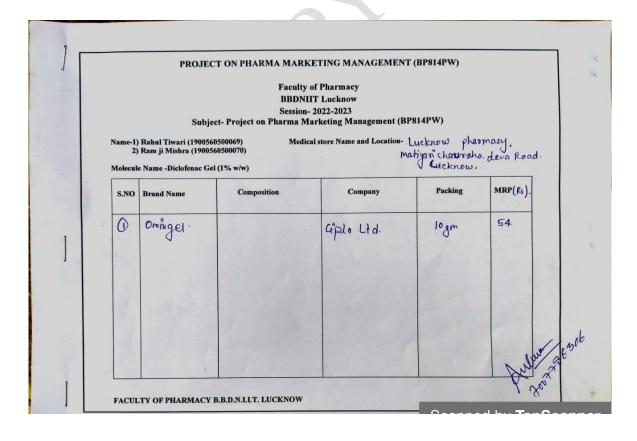
- 1. Kotler, P. and Keller, K. Marketing Management. 12th Edition, Prentice Hall, Upper Saddle River, 2011; 312-314.
- 2. Sabir Ali; Sales Promotion strategies in pharmaceutical industry, Indian drugs and Pharmaceutical Ltd (IDPL), Aligarh (india), 19-26.
- 3. Tripathi, K. D. Essentials of medical pharmacology (8th ed.). Jaypee Brothers Medical, 2018; 209-225.
- 4. Agarwal, S., Desai, S., Holcomb, M. and Oberoi, A. _Unlocking the value of BigPharma', The McKinsey Quarterly, 2002; 2: 64-71.
- 5. Azoulay, Pierre, —Do Pharmaceutical Sales Respond to Scientific Evidence? Evidence from Anti-ulcer Drugs working paper, Management Department, Columbia University, 2001.
- 6. AstraZeneca, _AstraZeneca Approach to E-Business', presentation to analysts, NewYork, 2002.

MARKET SURVEY

	PROJE	CCT ON PHARMA MARKETI	NG MANAGEMENT (BP814PW)	
(ame-1)	Sub Rahul Tiwari (1900:	Faculty of P BBDNIIT L Session- 202 ject- Project on Pharma Marke 560500069) Medical sto	ucknow 2-2023		AE Nau medi
2)	Ram ji Mishra (1900 e Name -Diclofenac C	1560500070)	'n	moket, Luck Mob no - 876	now
s.no	Brand Name	Composition	Company	Packing	MRP RS
0	Volini	Dictofener Diethylamine Linsond oil methyl sorticylate and menther gel (30g)	Surpharma	30gm	130
2	Ominigel	Dictofenac Virginlinad oil, Dictofenac Dietydous methyl salicylate and menthol gel (10gm)	cipla 1+3	10gm 20gm 30gm	54- 94- 121
3	Diclowin	Diclofenac Diethykum Linsectoi) mothyd Salighte 4 menthol			110

PROJECT ON PHARMA MARKETING MANAGEMENT (BP814PW) Faculty of Pharmacy BBDNIT Lucknow Session- 2022-2023 Subject- Project on Pharma Marketing Management (BP814PW) Name-1) Rahul Tiwari (1900560500069) 2) Ram ji Mishra (1900560500070) Medical store Name and Location- Anjono medical store Para: Lucknow					
	e Name -Diclofenac G	Gel (1% w/w)	ř	bra. Luckno	W
s.NO	Brand Name	Composition	Company	Packing	MRP RS
0	Dubinos	methyl salicylategel		30gm	235
2	Rapid gel	Diclofenac Diethylamice Viegin linceed til menthal methyl salicylate	Microbally (4d	30gm	103
3	Yoveron	Methyl Salicytotts Dicholorac Diothylamina Visgin lingustoil Methyl Galitylate menthol gel	Novaritis India Ltd.	30gm	137.

PROJECT ON PHARMA MARKETING MANAGEMENT (BP814PW)							
	Subj	Faculty of P BBDNIIT I Session- 202 ect- Project on Pharma Marko	Lucknow 22-2023	PW)			
2)) Rahul Tiwari (19005) Ram ji Mishra (1900 de Name -Diclofenac G	60500069) Medical sto 560500070) el (1% w/w)	ore Name and Location- Pal	pharmacy, m Lucknow.	natyan° chaura		
s.no	Brand Name	Composition	Company	Packing	MRP R.S		
0	Sumo	- Pictofenac Diethylamine Lingeed oit methylsolicylor and mentholgel	k Alken Labosatorisa	30gm	GG		
@	Intagesic	Dictofe nat Diethylenamine virgin Linsced oil mental and methyl salicylatege		30gm	J3		
3	omnigel	Dictofenac, Diethylora- mine Diethylamine methyl saliylategel	Cipla (td	10gm	54		
		Paris I			110/		



	PROJ	ECT ON PHARMA MARKETI	NG MANAGEMENT	(BP814PW)	
2	Sul) Rahul Tiwari (1906) Ram ji Mishra (190 le Name -Diclofenac	Faculty of Ph BBDNIIT L Session- 2022 Dject- Project on Pharma Market 0560500069) Medical stor (0560500070) Ruchi mo	ucknow 2-2023		o tweld
s.no	Brand Name	Composition	Company	Packing	MRP
	Valini	Diclofenae diethylamine Linseed oil manthanol methyl Galiglatagel	Sun pharma.	sogm	130
	Sumo	Dictofenal diethylomin Linated Oil methanal methyl salicylate gel	Alkem Labora Ud	tones zogm	66
	Omnigel,	Diclofenac diethylamine Gineced Oil mothand methyl soligilate gel	Cipla Ltd.	10gm	54
		methyl solicylate gel			

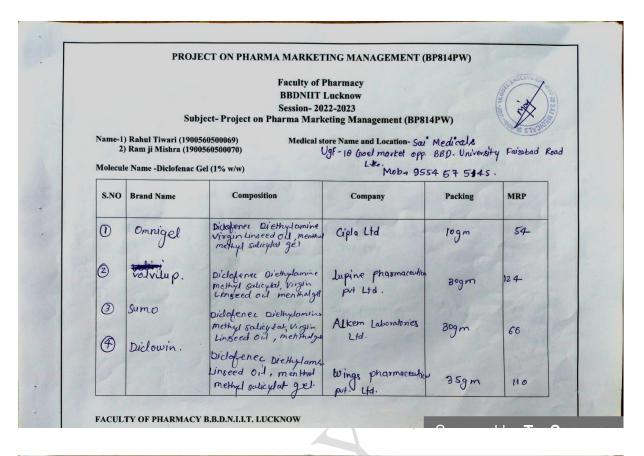
2		00560500070) Lucknow	Pharmacy Lucknow 22-2023	14PW)	
S.NO	Brand Name	Composition	Company	Packing	MRP
	Volini	Dictofenac diethylamine tinseed oil, methoral methyl salicylate gel	Sun Pharma	80gm	130
	Diction	Diclofenac diethylamin Linsced oil monthanal methyl salicylotegel.	Galety skin care	30g m	75
	Omnigel.	Dicloforac diethylams Universe oil monther methyl Solveylate ge	w cipla Ltd	Bogn	54

PROJECT ON PHARMA MARKETING MANAGEMENT (BP814PW) **Faculty of Pharmacy BBDNIIT Lucknow** Session-2022-2023 Subject- Project on Pharma Marketing Management (BP814PW) Name-1) Rahul Tiwari (1900560500069) 2) Ram ji Mishra (1900560500070) Medical store Name and Location-Purvanchal phormacy, matyern chauraha Molecule Name -Diclofenac Gel (1% w/w) Deva Road MRP Composition Packing S.NO Brand Name Company Ciclofenac Diethylamine Linseed oil, methonoli methyl Salicylate gel Glenmark pharmaceutical Dubinor 285 Ltd. Dictofenac Diethylamine Virgin Linneed oil, menthall methyl calicplate gel. 103 Rapid gel micro Labs Utd. 30 gm Diclofenal Diethylamin Virgin Linseed oil, menthans methyl salicylate gel Valini Sun pharma. 130 ominigel. 54. Cipla Ltd. FACULTY OF PHARMACY B.B.D.N.I.I.T. LUCKNOW

2	Subje) Rahul Tiwari (190056) Ram ji Mishra (19005		rmacy cknow 2023	4PW) Krishna medi	cal 840xe neax Universit
S.NO	e Name -Diclofenac Ge Brand Name	Composition	Company	Packing	MRP
	Vivo Gel	Dicofenac, Diethylamina Linsed oil .menthol methyl saliglate	Prevego	508	148
	Omni Hot wes	Dictofena, Diethylamina Viggin Linseed oil methyl salicy late Capsaicin, method gel	Cipla Ltd.	889	105
	Sumogel		. 14 5-	5%0	199 Chambhna
	Truthon Rapid (rue)	Dicherac methylsalighto	The healtheir Micro	109	39

	Subject-) Rahul Tiwari (190056050) Ram ji Mishra (19005605	BBDN Session Project on Pharma M	of Pharmacy IIT Lucknow 1- 2022-2023 Iarketing Management (BP814 cal store Name and Location- Shmi Sai Mulical 3336373644		Ruzidun cy
Molecul S.NO	e Name -Diclofenac Gel (1	% w/w) Composition	5336373644 Company	Packing	MRP
0	2 frashfortu	Carlo.	Smart	309	110
3	omri gel		Cipla Ltd.	logm	54
3	Sumo		Al Kem Laboratoria, Ltd.	30gm	(6

	Si) Rahul Tiwari (190) Ram ji Mishra (19	Faculty of BBDNIIT Session - 20 ubject- Project on Pharma Marl 00560500069) Medical s 000560500070)	Lucknow 022-2023		
Molecu S.NO	le Name -Diclofena Brand Name		Company	Packing	MRP
0	Diclowin	Diclofenac Diethylamine Linsced Oil, methyl Saliculate & menthal glel	Wings pharmaceuticals	35gm	110.
2	Volini	Dictofenec Diethylumin Linseed oil , methyl salicylate and menthu gel	Sun Pharma.	gogm·	130 GC A 130 M 130



2	Su) Rahul Tiwari (190) Ram ji Mishra (19 le Name -Diclofenac	BBDN Session bject- Project on Pharma N 0560500069) Medi 00560500070)	cal store Name and Location-		Proprio 306 96
S.NO	Brand Name	Composition	Company	Packing	MRP
0	Pubinor	Diclohener Diethylamin Linseed oil melhana methyl salicylate ga	e, Glenmark pharma	rewral 30gm	235
2	Rapid gel	Diclohenec Diethylam	une micro Labs Ltd.	30gm	103
3	vovenor.	Methyl solicylate gel Diclofrence Diethylamin Linscell oil methylaulicht methanal gel	Alassarbis T	30gm	137
P	Volini	Dictofene Diethylomin, Linscedol, methanol, me Saluylate gel		30gm	130 .
(3)	Ominigel.	Dictofenec Diethylamine Linsect oil, methyle sabi methanal get	Vigin Lipla Ltd.	logm	54

