

**AN ASSESSMENT OF THE STRATEGIES
FOR MARKETING ANTI-AIDS DRUGS IN
NIGERIA**

**A CASE STUDY OF ROCHE NIGERIA
LIMITED**

BY

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JUNE, 1999

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**A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL
AHMADU BELLO UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER IN BUSINESS ADMINISTRATION (MBA)**

ABSTRACT

This study was undertaken to assess the strategies for marketing anti-aids drugs in Nigeria, A Case Study of Roche Nigeria Limited the first pharmaceutical company to introduce Anti-Aids drugs in Nigeria.

AIDS, a deadly disease, is rising fast to the top of our public Health agenda from a relatively obscurity ten years ago. The great innovations in drug therapy have given hope to physicians and patients alike, the combination of drugs have been documented to delay disease progression and improve quality of life. It is now almost possible to live a normal life with AIDS.

The study therefore will further enhance combating this problem if an effective marketing strategy is identified, as a necessary measure towards arresting the alarming rate of death due to AIDS. It will also serve as an indispensable guide for pharmaceutical companies intending to introduce and / or to adopt strategic marketing decisions on Anti-AIDS drugs in Nigeria

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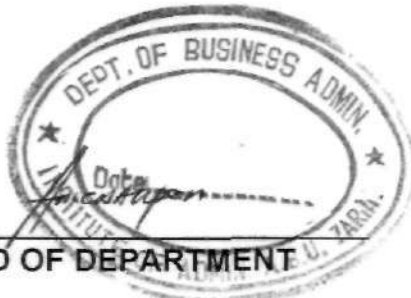
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CERTIFICATION

This project has been read and approved as meeting the requirement of the Post-Graduate School and the Department of Business Administration, Ahmadu Bello University, Zaria for the award of Master of Business Administration (MBA).

Mr. S. Ahmad (Mrs) M. A. S.
SUPERVISOR

15/3/2002
DATE


HEAD OF DEPARTMENT

15/3/2002
DATE

S. S. S.
DEAN, POST GRADUATE SCHOOL

04/05/02
DATE

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DEDICATION

This project is dedicated to my son Jabir.

DECLARATION

I hereby declare that this project is purely my work and has to the best of my knowledge never been published before.

All works consulted have been acknowledged according in the bibliography.

A handwritten signature in cursive script, appearing to read 'Abbas Sani Sambo', with the year '2019' written below it.

ABBAS SANI SAMBO

A rectangular stamp with the text 'KASHIM IBRAHIM LIBRARY' in capital letters, tilted slightly to the right.

ACKNOWLEDGMENT

A study of this kind requires the input of many, support was received from many people to whom I wish to register my profound appreciation and gratitude. It is however, regrettably impossible to recall or name all of them here.

This project would not have been completed without the assistance, patience and support of my supervisor Mrs. M. S. Akanet who agreed to supervise the work and guide me along, offering constructive criticisms and suggestions where and when necessary. To her I am very grateful.

It is my wish to acknowledge the assistance of some Roche staff for their useful contributions.

To the members of my family and my wife for their prayers, I say thank you.

My special thanks goes to God for giving me the will, strength and wisdom to participate in the MBA programme and initiating as well as executing this project successfully.

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1.1 INTRODUCTION

Nigeria is not only the most populous African Country, it is also one of the most populous in the world (104 million) according to 1996 data as against 85 million in 1991. The population is expected to double by the year 2017. There is no doubt about the vitality, restlessness and dynamism of its people particularly, as a growing nation. The male population was 1.1 percent more than its female population according to the 1991 census.

About one-half of the female population is in the reproductive ages and 62 percent of the population live in rural areas. Nigeria's estimated birth and death rates (1993) are 45.4 and 15.4 respectively with total fertility rate (1992) of 6.5 and annual growth rate of 3.0 percent.

Nigeria has a land area of 923,768 square kilometers with a population density per square kilometer of 95.8.

AIDS, acquired immune deficiency syndrome, was first recognised in 1981 among homosexual men in United States of America. The causative Human immune deficiency virus (HIV) was identified in 1983. The number of patients with AIDS has grown rapidly since the first reported cases. It is estimated that of the 5.5 billion world population, 22.6 million (0.4%) are living with HIV/AIDS. Also, since

the epidemic began, an estimated 6.4 million people have died from HIV/AIDS related complications, inspite of the comprehensive and successful prevention efforts in many parts of the world, 3.1 million new HIV infections were expected to have occurred in 1996 alone (an estimated 8,000 to 9,000 infections per day!). The estimates of the global HIV/AIDS epidemic as at December, 1996 are presented in the table.

TABLE 1: Global Epidemic (December 1996 Estimate Reproduced from Altice FriedLand, 1997).

New HIV infection in 1996	3.1 million
New infections per day	8,000
People Living with AIDS	22.6 million
HIV/AIDS associated deaths in 1996	1.5 million
Cumulative AIDS cases	8.4 million
Cumulative HIV infections	29.4 million
Cumulative HIV/AIDS deaths	6.4 million.

Cases of AIDS were reported for the first time in Central Africa around 1982 and in 1991 the World Health Organisation (WHO) predicted that within 10 years, 90% of AIDS cases will occur in developing countries.

In Nigeria, a figure of 8,077 AIDS cases was officially confirmed by April, 1997. Definitely, the number of cases reported is an underestimate because of under diagnosis, under reporting, and delays in reporting or no reporting at all. With the death of relevant statistics, we may not know how many people are currently living with or have died (as a result of) HIV infection AIDS in Nigeria. However, recent reports from the Nations tertiary hospitals indicated that HIV infection / AIDS is a very serious health problem in Nigeria.

It is sad that many people are unaware of this deadly disease due to lack of information, thereby continue living promiscuous lives with multiple partners and increasing the spread of the virus. It is very sad that our environment which favours polygamy is also another major route of transmission, consider an infected woman marrying a man with three wives already, she infects him and the three wives, what a disaster, as the disease will kill all the parents in that family and leave innocent children helpless, if not already infected. If this disease is allowed to spread, we stand the risk of losing millions of young men and women in their productive years and creating a large population of (possible HIV infected) Orphans. We must not wait for our health care system to be overwhelmed by HIV/AIDS. One unique aspect of this problem is that, while new infection are declining in industrialized countries of the world, the

incidence of new infection is still rising in developing countries like Nigeria.

The Federal Ministry of Health quickly set up the NATIONAL AIDS AND SEXUALLY TRANSMITTED DISEASE CONTROL PROGRAMME (NASCP), to design ways to create awareness of this deadly disease and to curb its spread, it however remained heavily biased towards prevention of new infections. In 1998, the Federal Ministry of Health organised a public service lecture for all levels of the Federal Public Service. Over five thousand public servants were sensitized about HIV infection and AIDS. There is also the state branches of the AIDS control programme, which collaborate with tertiary institution to disseminate information, on prevention of the disease, a good development for the country and those not affected, but what of those affected with HIV and AIDS in Nigeria?

In response to this National emergency, Roche (Nig) Ltd. a pharmaceutical multinational company in 1995 through a compassionate programme introduced two Anti-Aids drugs for the management of AIDS. Then came the clamouring by the medical community for the full introduction of these drugs in 1996, Roche (Nig) Ltd. introduced the drugs to the Nigerian Pharmaceutical Market at a monthly price of ₦55,905.67. Zidovudine at a price of ₦15,674.66 while Inivirase cost ₦40,231.01. Using a unique marketing strategy, and to

be effective however the end user (patient) most benefit from the strategy employed, the cost of these drugs is however considered high for Nigerians even for those that are considered rich.

In this study therefore we intend to assess the impact of the marketing strategy of Roche (Nig) Ltd. with respect to the availability and affordability of these anti-aids drugs and profer recommendations and suggestion for the purposes of improvements and effectiveness.

1.2 STATEMENT OF THE PROBLEM

The Large number of people with AIDS is a great threat, In Nigeria alone a figure of 8,077 AIDS Cases was officially confirmed by April 1997. Since then sadness, sorrow and grief has continued to increase among families through the spread of the disease resulting to death.

AIDS affect the young, the old, men and women without regards even for status as it affects both the rich and the poor. Once a person is infected by the virus it only becomes a matter of time before death prevails, it has become as it is often referred to a "Slow death sentence."

The two drugs introduced by Roche (Nig) Ltd. are not a cure, but prolong the life span of the patient, and improve the quality of life. However these drugs cost about N56,000 monthly which is far

out of reach of an average Nigerian, particularly those in need. The main problem is the daily alarming high rate of deaths resulting from the infection of HIV/AIDS in Nigeria, making it necessary to either stop or prevent the spread of such a deadly disease as well as treat patients with the disease by making the drugs not only available but also affordable.

1.3 OBJECTIVE OF THE STUDY.

The main objective of this research study is to ensure that every Nigerian has easy access and can afford the available Anti-aids drugs when the need arises, as a necessary step towards arresting the alarming rate of deaths due to AIDS. To also ensure that the marketing process does not give room for the introduction of fake, sub-standard or adulterated anti-aids drugs, because doing so will not only be to the detriment of AIDS patients but to Nigeria as a whole.

To achieve these objectives, the assessment of the strategies for marketing anti-aids drugs will focus on the following.

- (a) Source or maker's of the drugs.
- (b) Packaging, Labeling and branding.
- (c) Distribution System
- (d) Pricing of the drugs
- (e) Promotion.

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In order to achieve these objectives the study is focussed on the Northern Area Only, in accessing the marketing strategies as explained under the scope of the study.

1.4 SCOPE OF THE STUDY.

This research work being a case study is concerned with the assessment of the strategies for marketing anti-aids drugs of Roche (Nig) Limited which is the case study company, also the first pharmaceutical company to introduce anti-aids drugs in Nigeria.

The study will be limited to the Northern Zone area, one of the four zones contributing 20% of the total target of the company comprising of the following states Kano, Katsina Jigawa, Abuja, Niger, Nassarawa, Kaduna, Sokoto, Gusau, Zamfara, Plateau, Maiduguri, Gombe, Adamawa, Taraba and Bauchi States. The zoning system is based on the similarity in historical and cultural values of the people. This zone is chosen because it is one of the volatile areas of HIV infection that needs to be urgently curbed.

Also only the two anti-aids drugs Hivid and Invirase both antiretroviral drugs from Roche will be considered for the purpose of this study.

1.5 RESEARCH METHODOLOGY OF THE STUDY

The method used in sourcing of data for this research was mostly descriptive through the use of secondary data obtained from Roche Literatures, text books, monthly sales figures, annual reports Journals, and conference papers. For this study sampling method was used.

The Area North Zone was taken as a representative part to the whole of Nigeria. This is the purposive sampling a situation where a sample is chosen from a population in such a way that each choice is independent of the other choices and every member of the population has a fixed and determinate probability of being chosen (usually on equal probability). The draw back of this type of sampling method is that human bias cannot be ruled out.

While the procedure of data analysis will include simple descriptive statistics, the use of tables and graphs.

However, some problems were encountered with the collection of relevant data and these are highlighted under the limitation of the study.

1.6 LIMITATIONS OF THE STUDY.

The problems that militated against this study were numerous, already obvious from the sampling method and procedure employed, for convenience, easy recording, analysis and interpretation of data recording, analysis and interpretation of data purposive sampling method was used. Therefore possible errors associated with purposive sampling cannot be overlooked as the basis of human random sampling is biased

Inadequate finance and time constraint were other limitations to the study, the research study had limited time at its disposal to conduct, compile and submit the research report.

Obtaining information and collection of data from Glaxowellcome was also very difficult as their personnel were reluctant to give information on the company since it is viewed as giving "trade secrets". This did not give the research study the opportunity to compare the impact of Glaxowellcome marketing strategies to their sales. This limitation did not however prevent the researcher from carrying out his study as it is a case study of Roche (Nigeria) Limited.

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1.7 SIGNIFICANCE OF THE STUDY.

AIDS is rising fast to the top of our public health agenda from a relatively obscurity ten years ago, HIV infection and AIDS have become the major public health issues of the century, if this disease is allowed to spread, we stand the risk of losing millions of young men and women in their productive years and creating a large population of (possible HIV infected) orphans.

With a large population of HIV infected patients their are resultant consequences to the debilitating effect on the economy and human lives is enormous, affecting all category of people in our population, age, sex, race, or social status constitute no barrier even helpless children that are the future of generation are affected.

AIDS is a debilitating, dehumanising and deadly disease, the great innovation in drug therapy has given hope to physicians and patients alike, the combination of drugs have been documented to delay disease progression, prevent development of opportunistic disease and generally improve the quality of life. It is now almost possible to live a normal life with AIDS.

The study therefore will enhance combating this problem if an effective marketing strategy is identified, as a necessary measure towards arresting the alarming rate of death due to AIDS. It will also serve as an indispensable guide for pharmaceutical companies intending to introduce and / or to adopt strategic marketing decisions on anti-aids drugs in Nigeria.

1.8 DEFINITION OF TERMS

Prevention: The action of stopping the occurrence of the disease.

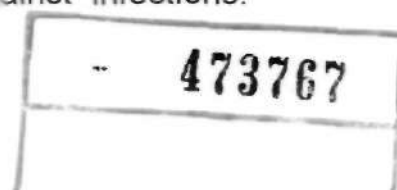
Treatment: A measure taken to relieve or cure an illness.

Epidemic: The rapid spread of a disease among many people in the same place.

Virus: An infectious agent, that is the smallest of all disease causing agents, responsible for the disease AIDS.

HIV: Human immunodeficiency virus. This virus infects only the human beings and attacks the body's immune system, this infection with the virus can lead to AIDS.

Immune system: This is the defence system of the human body which protects it against infections.



AIDS: Acquired immune deficiency Syndrome. AIDS develops in people infected with HIV. The HIV destroys the defence system and leaves the body open to a group of symptoms and illnesses that a person without the virus would be unlikely to be affected by opportunistic infections.

Opportunistic infection: An infection caused by a micro organism, usually bacterial that is part of the normal flora of the body which becomes pathogenic when the host is immune - compromised by an unrelated disease e.g. AIDS.

Retro virus: This virus store their genetic material as RNA instead of DNA. "Retro" means backwards, so-called because the virus makes the invaded cell to convert viral RNA back into DNA which is in opposite direction to the cells normal operation of converting DNA to RNA.

Antiretrovirals: These are drugs used to attack the retrovirus.

Reverse transcriptase inhibitors:

These are agents (drugs) that inhibit the enzyme reverse transcriptase responsible for the replication of the virus at an early stage e.g. HIVID.

Proteinase inhibitors:

They inhibit the virus at the later stage of development preventing the formation of a mature virus e.g. Invirase.

Management of AIDS:

A medical process whereby an AIDS patient is monitored to alleviate AIDS symptoms in order to increase the life span of the patient as well as quality of life.

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2.1 MANAGEMENT OF HIV INFECTION / AIDS.

PREVENTION

The pre-condition for infection of the disease is that the blood, semen or vaginal fluid of an infected person must come into direct contact with the blood stream of a healthy person, Even the smallest wounds. Transmission can be perinatal (from infected mother to child), blood to blood contact (e.g during blood transfusion), sexual practices (Heterosexual and Homosexual) and injections or syringes or other skin piercing instruments (e.g in drug addicts and during ear piercing).

For adults, sexual contact is the dominant mode of HIV transmission followed by blood transfusion and exposure to needles / Syringes. For children, the dominant mode of transmission is perinatal, with a secondary (and important) role for blood transfusion. Preventive and control measures are targeted at the different modes of transmission and in Nigeria, emphasis is on safer Sex. It has also been suggested that a central blood bank be established to ensure safety of blood transfusion practice in Nigeria.

For established cases of HIV infection/AIDS, drug treatment is inevitable and imperative.

OPPORTUNISTIC INFECTIONS

The clinical expression of HIV infection is very diverse and may vary according to the relative frequency of potentially opportunistic infections. The potential opportunistic diseases include tuberculosis, these diseases must be treated accordingly once they are manifested. In actual fact, the treatment of opportunistic infections used to be the mainstay of AIDS management before the advent of anti-retroviral drugs.

ANTIRETROVIRAL DRUGS

Since the discovery of HIV, an unprecedented resource effort by both government and pharmaceutical industry has been directed at searching for effective therapies with anti-HIV properties. A number of antiretroviral drugs are now available which has been shown in clinical trials to delay disease progression and increase the chance of Survival of HIV/AIDS patients. They are classified into two groups.

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- (a) The reverse transcriptase inhibitors: Are drugs that disturb the job of all HIV enzyme called reverse transcriptase, necessary for viral replication.

- (b) The protease inhibitors: The protease is one of HIV enzyme required to continue the process of HIV infection by acting like a “chemical scissors” because it cuts the long chain into shorter pieces making infection easy, the protease inhibitors prevent the protease enzyme rendering the virus ineffective.

However in the management of AIDS, a cocktail of drugs are required to attack the virus hard and maintain the pressure as such two approaches are used in the management of AIDS.

- (a) Convergent approach
- (b) Divergent approach

CONVERGENT APPROACH:

The use of two or more drugs acting at the same site e.g two (2) reverse transcriptase or two (2) protease inhibitors is recommended.

Glaxowellcome a pharmaceutical company has two AIDS drugs Efavir and Retrovir both reverse transcriptase and the convergent therapy for management of AIDS in Nigeria.

DIVERGENT APPROACH

This involves the use of two or more drugs that attack the virus at different sites e.g a minimum of a reverse transcriptase and a protease inhibitor Roche (Nig) Ltd., with Hivid a reverse transcriptase and Invirase a protease inhibitor is adapting the divergent approach of management of AIDS which most AIDS expert agree is the best combination by controlling as well as destroying the virus preventing infections and improving the quality of life for the patient.

2.2 MARKETING STRATEGIES

Today's marketing managers are faced with unprecedented challenges and opportunities, No longer can marketers survive in the increasingly competitive market place by relying only on a few time honoured maxims, such as "give the customer what he wants" and "Rely on the product life cycle to guide your product decisions". Marketing in today's turbulent environment requires a higher level of sophistication and sensitivity.

Marketing is the function through which firms respond to changes in their environment, it is also taken as all activities involved in the determination and satisfaction of customer's needs at a profit.

Our definition of marketing is intended specifically to focus attention on the relationship between marketing and other parts of business, especially as these come together in the development of corporate strategy. It is important to consider the several components of business firms, as these determine their ability to respond to their environment effectively.

In this way we can develop a good understanding of certain determinants for effectiveness in the marketing management or planning function itself. This could however be termed "Strategy".

A strategy is a "pattern of purposes and policies which are unique to the firm". More formally, a strategy is a planned course of action in pursuit of clearly stated objectives in the light of limited resources, a changing environment, and intelligent competition.

Going back to Ansoff's view of the firm, strategic decisions establish the relationship between the firm and its environment, especially with respect to the goods and services to be offered to the market.

Ansoff stresses the importance of strategic decision in these words.

"In many ways strategic decisions are the basic determinants of the success of the firm for unless the firms, products are addressed to market areas in which demand exists and in which the competitive climate is favourable; even the very best organisational form, or the most brilliant control of operations, will fail to produce profit".

What then are the marketing strategies employed by Roche (Nig) Ltd. with respect to their anti-aids drugs?

2.3 MARKETING STRATEGY OF ANTI-AIDS DRUGS BY ROCHE (NIG) LTD.

The marketing strategies employed by Roche are numerous which include,

Product Strategy:

Product development strategy, two new drugs were introduced to the market with a great potential and expectation as well as a competitive edge over potential competitors. Since the development and introduction of new products are frequently expensive and risky the products were introduced through compassionate grounds, with a three month free supply for every

six month purchased, to cushion the high cost of the drugs for patients, and to assess the acceptability and affordability of the products in Nigeria.

Packaging

Packaging deals with the development of a container and graphic design for a product. It makes the product more versatile, safer and easier to use.

Customer's attitudes towards a product can be influenced by a package and subsequently their purchase. Effective packaging involves more than simply putting products in containers or wrapping them up. Packaging materials serve certain functions as protection, convenience, promotion, identification and information.

The two Roche products are in coloured bottles to protect the products from light and a safety seal on the cap to prevent adulteration both also have an outer package for identification.

Branding:

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A brand is a name, term, symbol, design or a combination thereof, that identifies a seller's product and differentiates them from competitors' products.

Brand names however indicate quality, guarantee etc. but the element of a branding that cannot be spoken, which is often a symbol or design is called a Brand mark or Trade mark.

A Trade mark:

Is a legal designation indicating the owners having an exclusive right or use of a brand, or a part of a brand, and others are prohibited by law from using it.

In the case of the two products introduced by Roche.

The trade name for saquinavir is Invirase while the trade name of Zalcitabine is Hivid. For the purpose of this study the trade name Hivid and Invirase are used.

The benefits of branding to the buyer (consumer) is the quick evaluation of quality. A brand symbolizes a certain quality level to a purchaser and the person allows that perception of quality to represent the quality of the item in question; it also aids identification with branding the buyer recognise and identify the products they want quickly.

PRICING

Pricing is generally used to describe the money value of an item with money being used as the common denominator of value. Price is therefore value expressed in terms of Naira and kobo or whatever the monetary medium being used. The price of a product or service is a major determinant of the market demand for the item, price will affect the firms competitive position and its share of the market. Prices are however expressed in many forms like charges or simply price.

Pricing a product calls for a careful decision, because if the price is too high, people will abandon the products and if its to low, the product will be undervalued. It is a highly visible element in the marketing mix and as such a powerful strategy weapon for the marketer.

Prices are therefore set to achieve a certain objective or goal and this calls for some caution at price setting process. The employed initiately was rapid skimming method, where a high price and high promotion was employed, the prices of the products for a month were:

(a)	Hivid tablets	=	N15,674.65
(b)	Invirase Caps	=	N40,231.01

However, other factors that influence pricing include.

(a) **Demand:** Demand for a product influences pricing in most cases, as prices are normally charged according to the demand made on a product.

(b) **Competition:** The prices and action of competitors greatly influence a company's pricing. Competition can stem from any of the following sources

- (i) Direct from similar products
- (ii) Available substitutes
- (iii) Unrelated items seeking the same customer's money.

(c) **Cost:** Some companies set prices on the basis of cost incurred in producing their product. A certain amount of mark-up is added to the cost of production to make up the selling price. This is termed a straight pricing policy, but neglects other factors like demand for the product and competition. The straight pricing policy

was employed by Roche as it was observed that the demand for the products were their due to high statistics and no competition as it was the first pharmaceutical company to introduce anti-aids drugs in Nigeria, this later changed as you will see later.

PLACE (DISTRIBUTION)

This is the movement of goods from point of production to the point of consumption. Certain factors have made it difficult for producers to sell directly their products to the consumer and as such, intermediaries are sought in the delivery of such goods to ultimate buyers. These intermediaries, are then referred to as middlemen. The middlemen may be who esalers, retailers or agents. A producer could use the services of one or all of these middlemen in distributing his products, depending on the nature of the product, number of the customers and the channel used.

To ensure availability of the product to all those in need the following channel of distribution was put in place by Roche.

(a) Availability of the products at the Depots,

Area North has three	-	Kaduna Depot
		Kano Depot
		Abuja Depot

customers. Messages may not be only on the product alone, but also pricing, price reduction, discount offered etc.

Products may have close substitutes produced by competitors, it therefore becomes necessary for a marketer to use all means of persuasion to attract as many customers as possible to his product or alternatively lose the sale to competitors.

Advertising:

Advertising has been defined as any paid form of non-personal presentation and promotion of ideas, goods, or service by an identified sponsor. It involves the transmitting of standard messages to large number of intended receivers. Its purpose is to carry the product through the distribution channel by appealing directly to the product user or ultimate consumer.

The objectives of advertising Hivid / Invirase by Roche is to:

- (a) Inform the public of the new drugs as well as availability in Nigeria.
- (b) Build brand preference.

Advertisement was through Medical Journals, daily newspapers carrying messages like "Hope for Aids Patients", and "Roche introduces anti-aids drugs" etc.

Also by direct mailing of Journals and reprints of materials.

There was also publicity on Radio and T.V interview.

Sales Promotion:

After the sales of the products in 1997 part of the strategy for 1998 was sales promotion with some special stock obtained from our parent company in Switzerland, the promotion was:

For any purchase of Hivid and Invirase the patient gets a 50% reduction on Hivid total cost then reduced from N55,905.66 to N48,068.33.

Personal Selling:

Personal Selling is a process of informing customers and persuading them to buy products through personal contact in an exchange situation.

Personal selling is aimed at individual or a group, though more expensive than advertising, but has a greater impact on customers, immediate feed back is also got through this medium, and this allows marketers to adjust their message to improve communication.

However, specific goals of personal selling may vary from one firm to another.

2.4 MARKETING STRATEGIES OF ANTI-AIDS DRUGS BY GLAXOWELLCOME.

Glaxo and Wellcome two pharmaceutical multinational companies merged in 1996 to form Glaxo wellcome. The integration of Glaxo and Wellcome consolidates the two companies extensive research and marketing programmes.

Historically both companies had a long term commitments to HIV research both individually and through collaborative ventures with each other, and with academic institutions.

In 1996 they entered into the Nigerian Pharmaceutical market by introducing two antiretrovirals, Epivir and Retrovir using the convergent approach.

RETROVIR (ZIDOVUDINE, AZT)

Retrovir is a reverse transcriptase inhibitor and the first antiretroviral medicine, approved for use in HIV - infected adults and children, and was first introduced in 1987. It is one of the thoroughly researched anti-aids drug that delay's the progression of the disease.

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EPIVIR (LAMIVUDINE, 3TC)

The Original compound BCH-189 was discovered in 1989 by Scientists at Biochem Pharma Inc of Quebec, Canada, and licensed to Glaxo in 1990 for development and marketing. Glaxo developed the antiviral agent known as Epivir also a reverse transcriptase inhibitor.

The combination of Retrovir and Epivir both reverse transcriptase inhibitors is a convergent therapy that is both drugs act at the same site (the initial phase) preventing the formation of the virus, as a result of this the marketing approach by GlaxoWellcome was slightly different from that of Roche.

PRODUCTS:

GlaxoWellcome has two products Epivir and Retrovir used as a combination therapy. The liquid formulation also available for children, therefore both adult and children formulation is available.

Retrovir being the first drug for managing HIV have shown a reduction in the rate of transmission of the disease from mother to child during pregnancy and so is used for pregnant women with HIV.

TRADE NAME:

The trade name of Zidovudine is Retrovir while lamivudine is Epivir. This allows for quick evaluation of quality by the buyer.

PRICE

As both drugs are reverse transcriptase inhibitors, the price of the combination is lower than that of Roche, N27,000 only for a month.

PROMOTION:

When Roche reduced the prices of its drugs through promotion, GlaxoWellcome responded by also reducing the prices of its combination from N27,000 to about N18,000 per month.

DISTRIBUTION:

The distribution channel is similar to that of Roche, it involves selling directly to customers, sales from the depots or through the medical representatives.

The number of field force of GlaxoWellcome is by far more than that of Roche hence have a larger reach.

PARASTATALS BUSINESS:

GlaxoWellcome made a lot of sales through Government patronage, through State Government and Parastatals like Central Bank of Nigeria Clinic, N.N.P.C Clinic which is mostly credit business (sales).

Thus GlaxoWellcome and Roche are the only two pharmaceutical companies with antiretrovirals in Nigeria for now, each company has been able to create a niche in the market for its products.

Roche for effective and safe therapy for adults, while GlaxoWellcome has a less expensive medication for children and pregnant women.

3.0 HISTORICAL BACKGROUND OF ROCHE NIG. LTD.

3.1 HISTORICAL BEGINNING

Twenty - six - years - old Fritz Hoffman, a swiss, and Max Carl Traub, a pharmacist from munich Germany founded the limited partnership Hoffmann, Traub and Co in Basel, Switzerland, with the sole aim of *manufacturing and selling pharmaceutical and chemical preparations*. That was on march 31, 1894.

On October 1, 1896, just two and a half years Later, the company was reregistered as F. Hoffmann -La Roche & Co. (the origin of the short form "Roche" by which the company is known worldwide today).

The facts of the company's founding and reregistration say nothing of its deep family roots not to talk of its turbulent early years.

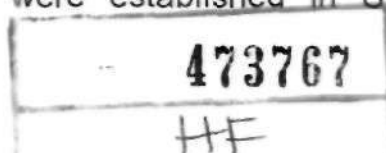
F. Hoffmann-La Roche & co. was the only chemical company in Basel to confine itself from the start to the manufacture of drugs and, particularly, finished pharmaceuticals Unlike Basels other chemical companies, Roche did not have its origins in the synthetic-dye industry. It was also one of the few pharmaceutical companies in the world that were not founded by a pharmacists or a doctor but by an enterprising young businessman.

Fritz Hoffmann, the third in a family of five children, was born on October 24, 1868 to Friedrich and Anna Elizabeth Hoffmann-merian in the city of Basels, Switzerland. He did not go to the university he wanted to be like his father - a businessman.

The opportunity came through Bohny, Holinger & Cie, a company which he and his father Friedrich had taken an interest in some years back. Bohny, hollinger & cie, had built a small laboratory to manufacture pharmaceutical extracts, ointments, pills, essential oils, linseed-oil varnish and floor polish, and with the hiring of the experienced munich pharmacists max carl Traub, the operations unit was in perfect control.

Blessed with great business acumen which saw him criss-crossing Europe and America, Fritz Hoffmann established many business contacts. He married Adele La Roche in 1895, a marriage which resulted in the renaming in 1896 of the drug manufacturing company Hoffmann, traub & Co. to F. Hoffmann-La Roche & Co, after Fritz and his wife, Adele.

Pharmaceutical research was steadily intensified with efforts made to increase the output of vitamin A, B, and C while existing production sites in Basel, Grezach, Paris / Fontenay, Welwyn and Nutley were greatly expanded and new facilities were established in Sisseln,



Belcideve (new Jersey, USA), Dalvy (Glasgow UK) and Thana (Bombay, India).

In 1963-64, Roche ventured into the fragrances and flavours market, acquiring the fragrances manufacturers L. Givaudan & Cie S. A, Geneva, and Roche Bertrand Duport S. A, Grasse (France) after initial sales of the vitamin A intermediates to the fragrance manufacturing company.

Roche prowess in the manufacture of benzodiazepines reached a crescendo in 1960 and 1963 when it respectively launched librium and valium Roche, two drugs whose successes among others, pushed the company's worldwide staff strength to 19,000 in 1965 as against 7,000 in 1953.

During the period 1953-1965, Roche pursued a course of growth through acquisitions, as it not only acquired the fragrance manufacturers, Givaudan and Roure Bertrand Dupont, but had earlier, in 1958, brought over laboratories sauter S. A, Geneva, a firm which specialized in pharmaceuticals and adhesive bandages.

Unfortunately, however, these diversification attempts never achieved their targeted goals. The benzodiazepines boom slumped as patent rights expired in core markets, and instead of recording successes from the money consuming diversifications, the company faced

unexpected difficulties. As if the down-turn was not enough, Roche at the time also got enmeshed in image crisis, a trend which naturally called for reappraisal by the company.

Following Adolf jann's resignation in june 1978 as chairman of the Board, Fritz gerber, a lawyer, stepped in chosen to lead Roche out of its business and public relations difficulties, Gerber took off in earnest, making cost-efficiency his top priority to bring the company back on track.

This transformation, as it were, embraced a coordinated and improved performance in the areas of safety, environmental protection and corporate communication as well as a strict budget discipline.

In an emphatic about-turn from the diversification days, Roche tightened its organizational structures and concentrated activities on core business areas. Roche also consolidated its corporate activities through selective acquisitions and divestments in various business segments.

Roche's consolidation process equally laid the foundation for a new range of products to succeed the benzodiazepines, whose sales were declining.

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The 1980's saw only one or two products launched per year, and prominent among them was Roferon-A, which was launched in 1986 for the treatment of certain types of cancer and hepatitis B.

The company also intensified its activities in genetic engineering and nonprescription medicines in the 1980's and early 1990s, and this prepared it strongly in two key areas for the future.

Apart from striving to become an environmentally conscious company through the introduction of better safety and environmental controls, Roche looked into its public relations and quickly abandoned its public reticence for a new policy of openness, indicating that it took its responsibilities to society seriously.

The company's acquisition in 1990 of a majority interest in Genentech Inc. South San Francisco, USA, a leader in the field of genetic engineering, and the takeover in 1994 of syntex corporation, a strong research-oriented company, were part of measures put in place by Roche to strengthen its position in the face of government pressure on pricing and declining growth rates in pharmaceutical markets worldwide.

3.2 ROCHE IN NIGERIA

Chief (Dr) Chris O. Ogunbanjo the company chairman since inception was invited to Switzerland in 1975 for preliminary discussions regarding the possibility of establishing a local subsidiary of F. Hoffmann-La-Roche & Co. Ltd. The chief was able to convince the main board that such an investment would be a profitable venture in Nigeria. He was then given the responsibility of incorporating the company and of identifying suitable local investors and obtaining government approvals.

Roche (Nig) Ltd was registered on 30th, January 1976 (No Rc 16,806) with the following board members Chief J. Udoji, Dr M. Aitwegg, Dr R. Von Graffenried, Alh. A. Mai-Sango, Dr Walter Werner and Chief (Dr) C. O. Ogunbanjo as chairman.

The company soon identified a suitable land in the Agege area of Lagos as the factory site after an initial study of the land by an official from Switzerland, an approval for a lease of 99yrs was made, and there at Dopemu, Agege, stands today a factory which by world standard is described as first class.

Roche (Nig) Ltd core business from inception was a triangular chain of importation, distribution and sales. The key pioneering staff then were:

Mr. Nath Akobundu (National Sales Manager) and Mr. O. Falabi (Superintendent Pharmacist) warehouse and distribution Manager both reporting to an expatriate Pharma manager, Mr. W. Fletcher.

This was after an initial Agency operation with kingsway chemists of the early / mid -1970s during which the potential of Roche products became quite glaring.

Sales activities at the beginning were regional, as only the lagos head office and the eastern area offices were functioning. Turnover in the first year was less than N2 million, but by 1978 a promising growth picture could be seen, as sales were close to N4 million, with two new products, Bactrim and Ixotam, introduced.

In order to fully tap the market opportunities in 1979-80 the division was reinforced with marketing personnel, including Mr. J. O. Akinbinu, while a new area office was opened in kano. The lagos head office also moved along with other divisions from 31 Town Planning Way, Ilupeju, to its present permanent location in Dopemu Area of Agege, Lagos.

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This indeed marked the beginning of the active growth and expansion period as the following three years transformed the division into a vibrant unit with a corresponding positive impact on the entire

company operations. Sales operation to the west was strengthened with a new area office in Ibadan, while a medical manager joined the pharma team to organise and coordinate necessary clinical trials and support medical marketing. By 1983, sales jumped to an all-time high of N11.8 million with the headcount rising from 21 in 1978 to 39 in 1983. Product lines also increased from 36 in 1979 to 40 in 1983 inclusive of new introductions like Bactrim Expectorants, Imadyl, Rocephin and Protovit. The company's products and services were well accepted as of high quality by various customers nationwide.

However, the economic recession taking its toll on government finances, forced the authorities to clamp down on imports by putting in place an 'import licence' procedure in 1982 which severely restricted importation of drugs (amongst others) into the country. This eventually led to the structural adjustment Programme (SAP), embarked upon by the Federal Government in 1986. Mr. Akinbinu, who was a part of the action, recalls '1984-86 was the most trying period for Roche, as sales rapidly declined to an all-time low of N3.6 million in 1986 due mainly to grossly inadequate inventory, as the company had no local production facility by then to support the restricted importation of finished goods. Activities nearly ground to a halt, with pharma head-count nose-diving from 39 (1983) to 12(1986), while several products were discontinued. It was like a cussy-stage for the company's life history.

In 1987, having successfully convinced the technical partners on the future potential of the company and the country, the pharma manufacturing plant commenced operations with five products, fansider (antimalarial), lexotan (traquilizer), mogadon (hypnotic), Saridon-P (analgesis) and valium Roche (tranquilizer/sedative) all in tablet form. The development gave the required impetus to revamp sales. In the first year of operation (1987) sales from locally manufactured lines were 40% of total pharma turnover of N6 million, while it has grown above 80% over the years.

Despite considerable legislative control, Roche (Nig) Ltd has since the 1990's come up strongly from the recession of the mid-1980's. The company has continued to grow despite the hiccup generated by the Essential drugs list (EDL) Decree of 1987, with sales rising through N34 million (1990), N55 million (1991), N89.2 million (1992) up to 406 million in 1995 and over 500 million in 1997, though in an environment of mounting inflationary influence rooted in massive devaluation of the Naira over the years. Roche (Nig) Ltd moved from 7th in 1993 in the pharmaceutical ranking in Nigeria to 6th position in 1995, with the hope that it will move to the 4th position as the "magic year" of 2000 draws near, because of introduction of new product expansion of the

packaging area and upgrading of the laboratories and power supply to accommodate the needs of the new machines are potential means towards the realization of this goal.

3.3 OBJECTIVES OF ROCHE

- (a) Production and sales of pharmaceuticals and over the counter (O. T. C.) medicines.
- (b) Pharmaceutical research of new drugs and medicines to keep a head of the competition and contain constantly using costs, to meet the growing demand for medicines.
- (c) In search for new grounds Roche produces and sell vitamins and fine chemicals.
- (d) Produces Diagnostics, which is very much in line with the times, as the search is being stepped up everywhere for ever better, faster and (if at all possible) more cost-effective ways of identifying and monitoring disease.
- (e) Sales and production of fragrances and flavours.
- (f) Though the Roche management is definitely too business-minded and lives up to its obligation to achieve profit levels expected by the shareholders, the management is also socially committed.

Roche (Nig) Ltd donated 20,000 spectacles collected by friends of the lions club in siegburg (Germany) and the Association of optometrists in Dusseldorf (Germany) to the Lambo Eye foundation. Nigerians suffering from cancer were supported with drugs and sponsored for special treatment outside the country.

3.4 ORGANISATION STRUCTURE OF ROCHE (NIG.) LTD.

The Managing Director of the company reports to the chairman. Under the managing director we have six different heads of department reporting to him.

The pharmaceutical division is the largest division of the company with three units sales marketing and chemical research. The production division has a production manager and is responsible for the production of quality drugs and pharmaceuticals.

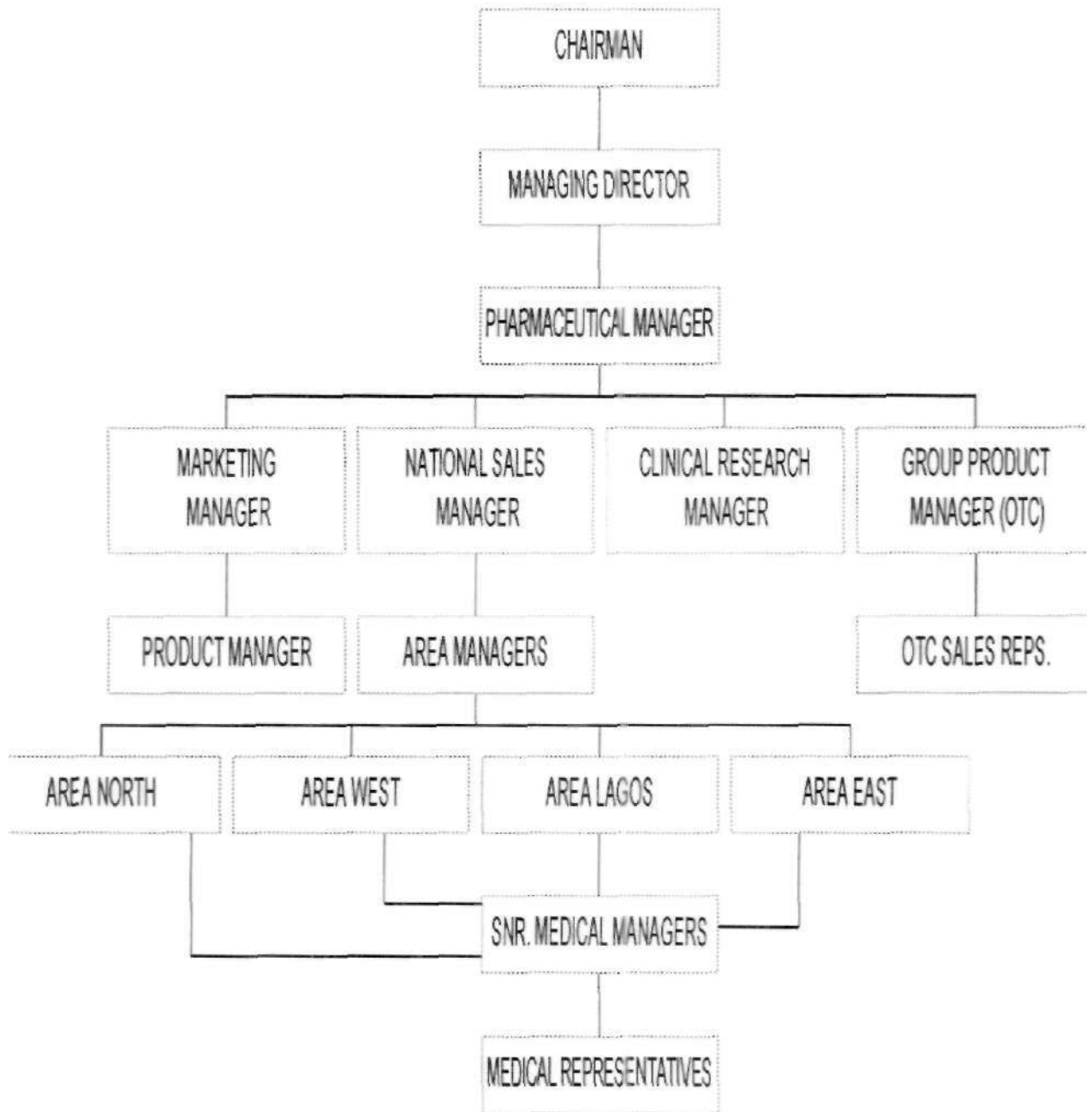
For vitamins and fine chemical division with a country representative (or divisional head) the sales and marketing of bulk vitamins, feed vitamins premixes and veterinary products is what he does.

Flavours division has a sales manager this division was established in 1993, making it the youngest division with a workshop manager in-charge responsible for all the engineering work in the company.

Finance division, with a finance manager as head of department. A very important aspect of his function is cash management, which enables funds to be available as and when required and at the best rates possible. He also controls tightly the cost of the company and tries in cooperation with other managers to institute wherever possible.

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ORGANISATIONAL STRUCTURE OF ROCHE (NIG) LTD



3.5 FUNCTIONAL OPERATIONS OF ROCHE (NIG) LIMITED

The managing director of Roche (Nig) Ltd Mr Alfred Spinnler from Switzerland heads all the operations of the company in Nigeria.

There are three division all reporting to the managing director, they include,

- (a) Pharmaceutical division
- (b) Vitamins and fine chemicals division
- (c) Flavours division

(A) PHARMACEUTICAL DIVISION

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This division consist of three units, sales unit, marketing unit, and clinical research all reporting to the pharmaceutical manager. The marketing unit is headed by a marketing manager who approves major general policies in support of the strategy adopted as well as review of master plans, programmes, and budgets as well as review and appraise the results of operation, reporting to the marketing manager are the product managers.

The sales unit is headed by the National sales manager and is responsible for driving and obtaining the sales. There are the area managers in four different zones responsible for the daily monitoring of the field force to meet their sales target, the area managers report to the national sales manager.

The third unit under the pharmaceutical division is the clinical research unit. The importance of good clinical trials as a prerequisite by the division. The function is handled by a clinical research manager to locally conduct quality clinical research that meets international standards and also to introduce several new products into the market. All the three units under the pharmaceutical division work as a team, the clinical research unit enables clinical trials before product introduction, the marketing department design programme to promote the products, while the sales unit implement and bring the desired sales for the company.

(B) VITAMINS AND FINE CHEMICALS DIVISION

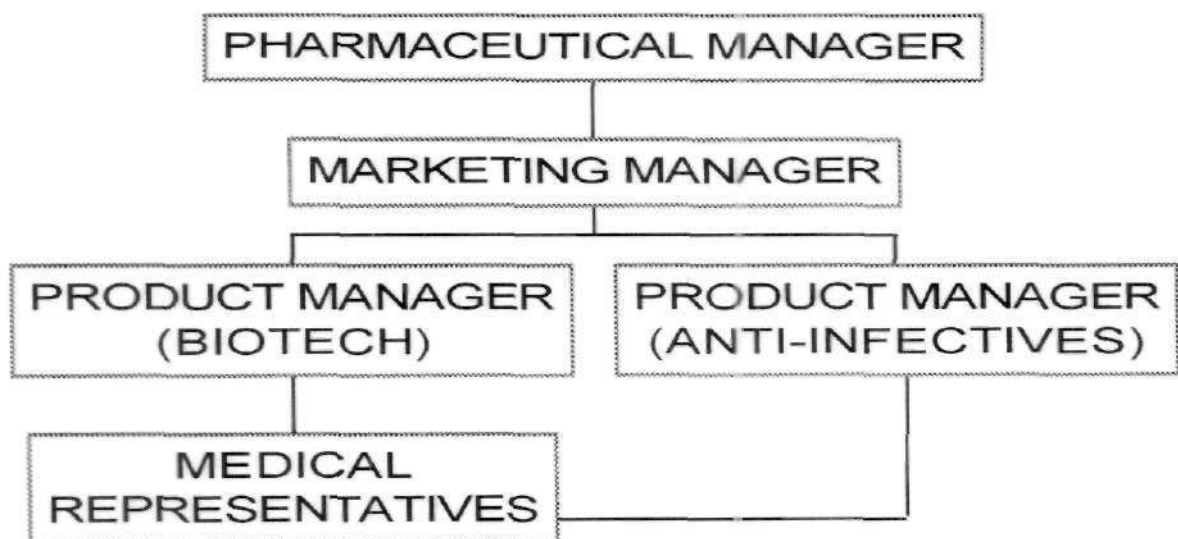
Roche (Nig) Ltd started operations in Nigeria in 1976 with a country representative as a head, a significant aspect of its operations is the sales and marketing of bulk vitamins, feed vitamin premixes and veterinary products. Encouraged by the parent company F. Hoffmann-la Roche Ltd, and its leadership position in the field of vitamins, there was no doubt that Africa's most populous nation, Nigeria presented an attractive market for the vitamins and fine chemicals division of Roche (Nig) Ltd. The company representative reports directly to the managing director of Roche (Nig) Ltd.

(C) FLAVOUR DIVISION

Having recorded success with the pharmaceuticals and vitamins and fine chemical divisions, Roche (Nig) Ltd thought of expanding. This gave birth to the established division in the company.

The sales manager is the head of the flavour division whose job entails consumer orientation through implementation of programme to enlighten the public about flavour for food, beverages, tobacco as well as pharmaceuticals. The division markets about 45 brands of flavours in Nigeria, to food processing, drinks manufacturing and pharmaceutical manufacturing companies in the country. The sales manager as other divisional heads report to the managing director.

3.6 MARKETING DEPARTMENT OF ROCHE (NIG) LTD



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The marketing department of Roche (Nigeria) Limited is a department under the pharmaceutical division with the marketing manager as head of the department, he co-ordinates all marketing plans and has two product manager's managing different product portfolio reporting to him.

- (a) Product manager (Anti infectives):- This manager is responsible for all antibiotics like Rocephin, Bactrim and anti-malaria's like Fansider, Lariam and Fansimef.
- (b) Product manager (BIOTECH):- The manager is responsible for all High-tech products which includes Roferon-A for hepatitis and cancers and anti-aids drugs Hivid and Invirase which are the subject of this research work.

3.7 THE OPERATIONS OF THE MARKETING DEPARTMENT

The marketing department is considered an important department and therefore saddled with various responsibilities, the department designs marketing functions by carefully picking and choosing from the various mix element until a collection or strategy which is considered appropriate is decided in taking decision, Which is no casual exercise as several factors e.g the environmental pressures (both positive and negative) has to be taken into account, the team will also take advantage of the firms strengths while avoiding its weakness, be

responsive to the competitive scene, recognize the meaningful consumer values and include channel of distribution alternatives, all these is to enable a good strategy that will ensure a sustainable competitive advantage a so called competitive edge, over other companies.

Apart from the primary assignment of strategic planning and business development the marketing department has additional responsibility to look after market research activities and divisional statistics.

Market research is always vital since the development and execution of marketing strategy does not occur we all know, in a vacuum. The Marketing manger requires lots of data on which to base his plans. Indeed, managers have begun to learn that "knowing the market" is an underrated marketing essential. The need for such specific knowledge runs counter to time -honoured assumptions that good mangers can manage anything. They cannot, they must know the market in a very intimate sense.

Sound product knowledge is required to enable effective marketing and sales of products, the marketing department provide this and improve the selling skills and introduce new concepts in selling to develop the personnel (sale force)

The selection and development of key executives for long range planning as well as review and appraisal of results of company operatives are responsibilities of the marketing department to achieve effective strategic planning and to move the company to greater heights and realisation of company objectives.

It is one thing to design excellent marketing programme it is another thing to ensure implementation of these programmes, the marketing team always ensures that the marketing programmes are well implemented. As they are responsible for the sale of their products.

3.8 MARKETING PROBLEMS OF ROCHE

The marketing department thus very important is not devoid of problems, the size of the departments for instance is small, and the number of products per manager high. Two or three products for a manager is enough to enable focus and successful design of marketing plans and achievable objectives.

The two anti-aids drugs for this study should for example be the sole drugs for a products manager since its important for the manager to study and understand the disease condition and his drugs very well, also their is a lot of potential which can be tapped with more focus.

For proper execution of marketing activities funding is very vital, but as the case generally, marketing and finance department always disagree when it comes to investments regarding promotion or marketing activities as its difficult to quantify the result immediately. Roche (Nig) Ltd is not an exemption when marketing wants an increase in funding for increase marketing activities, it is sometimes viewed unnecessary and a waste of time and resources by accounts department.

Since each manager is responsible for his products, it is sometimes difficult to ensure implementation of marketing activities as manager's have many products to handle at the same time.

Despite the problems in the marketing department, the department has been able to adjust and still design programmes that will increase the turnover sales and profit of the company making her one of the leader's in the Nigerian Pharmaceutical Market.

3.9 FUTURE PROSPECTS OF ROCHE IN NIGERIA

There is great optimism on the future prospects of Roche in Nigeria, keeping the potential of the Nigerian market and the natural resources available in the country in mind. Nigeria has all it takes to become a very prosperous nation, blessed with human resources with a tremendous drive that can be developed. This drive and eagerness to strive for success is an important prerequisite to strengthen the infrastructure and maintenance culture essential to support the speed at which the nation is expected to grow, from 100 million inhabitants today to an expected 120 million by the year 2000.

Though the country experienced a few ups and downs, it is encouraging to note that the right economic measures resulted in a stable Naira, reduced inflation and availability of sufficient foreign exchange. Imports and inspection are channeled in a manner favourable to the industry and adding value to the country.

Though many pharmaceutical companies have left the country when the going was not that easy, the favourable results of recently introduced measures are reflected in a positive development for Roche (Nig) Ltd. F. Hoffmann-la Roche Ltd has increased its stake in Roche (Nigeria) Limited from 40% to 60%, showing the strong commitment and confidence of the technical partner.

80% of the sales turnover is achieved with locally manufactured products that guarantee international Roche Group Quality Standard; Showing Roche interest in Nigeria.

Products, product ranges and individual packs are being modified to suit better the specific requirements of the customer, Roche is particularly proud that the company can offer an internationally updated product portfolio to the customers. In 1995, the first interferon, (Roferon-A), and an antidepressant of a new class, Aurorix, were launched while in 1996 the first Anti-Aids drugs were introduced into the Nigerian pharmaceutical market, Roche still intends to continue updating her product portfolio.

Training of people is seen as an important factor in the success of the present team. All managers are and is expected will continue to be given the chance of international exposures by attending overseas training.

These activities confirm's Roche's firm belief in business success in Nigeria, a company with competent staff, best good manufacturing practice (G.M.P) in quality control and assurance, clinical trials of international standard and a network of area offices and depot system (John Holt) nationwide amongst other services offered has its price.

Since the Nigeria medical profession, customers and patients go for high and guaranteed quality, Roche (Nig) Ltd has been and will continue to be successful.

Based on a stable environment and an improved economic situation as well as Roche's excellent drugs and competence Roche gained the invaluable trust and support of its partner, the customer, Roche (Nig) Ltd will show, as proven in the past, continued success also in the future and is proud to contribute to a healthier tomorrow in Nigeria for the Nigerians.

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4.1 TYPE OF DATA

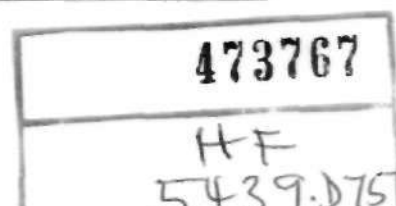
The type of data collected for the purpose of this study is the secondary data. Data of monthly sales record of anti-retrovirals (Hivid and Invirase) in the North were collected and collated over eighteen month period starting from May of 1997 to October 1998.

4.2 METHOD OF RESEARCH

For the purpose of obtaining secondary data, the descriptive method of research was used, which involves collecting monthly sales figures of North Area on the two anti-aids drugs. North Area which consist of states, was further divided into five zones coded N1, N2, N3, N4, N5 to reflect different territory coverage by the medical representative, to provide for easy data collection and analysis.

The five zones are divided as follows:

N1	- KANO, KATSINA, JIGAWA
N2	- GUSAU, KADUNA, SOKOTO
N3	- NIGER, MINNA, NASSARAWA, ABUJA
N4	- MAIDUGURI, YOLA, ADAMAWA
N5	- JOS, TARABA, BAUCHI, GOMBE



Monthly Sales of Hivid and Invirase from the five zones was collated and pooled as North Area sales, which is used in this study.

4.3 SAMPLING

The whole of Nigeria is the universal set of observation in assessing the strategies of marketing anti-aids drugs with which the researcher is concerned, it will however be very difficult and time consuming to carry out such a study covering such a large scope i.e whole population in Nigeria.

The research study therefore decided to study just a part of Nigeria, and the Northern Area sample chosen due to easy accessibility to sales record data, time constraint for the completion of the study, similarity in territories as a result of similar historical, cultural, and traditional values which have allow for meaningful deductions from the data obtained.

The Area is under a manager, who maintains a check on the sales team as well as ensures implementation of marketing strategies of the company, the manager also supervise and guides the team to achieve the desired sale target. Above are some of the reasons for selecting the Northern area as a sample for this research purposes.

4.4 DATA COLLECTION

Roche (Nig) Ltd evaluates the performance of its sales team through a monthly sales performance record for each medical representative on each product. Data was therefore collected from the sales performance of medical representative on Hivid and Invirase in the North, collated to give the North Area Sales which is presented in this study.

4.5 DATA ANALYSIS

In the analysis of data, the research study intends to use the monthly sales performance prepared by Roche to evaluate and assess the various marketing strategies of anti-aids drugs.

The relevant impact of the marketing strategy with regards sales volume, increase sales, effect of promotion, the impact on patients (the buyers) as well as how it affects the general availability and affordability of these products, all these are analysed by the use of simple descriptive methods like percentages and illustrations using graphs for simplicity and clarity.

5.1 DATA PRESENTATION

IN ASSESSING THE STRATEGIES FOR MARKETING ANTI-AIDS DRUGS BY ROCHE (NIG) LTD, A FOCUS ON THE FOLLOWING ASPECTS WILL BE NECESSARY.

(a) Source or maker's of the drugs:-

Hivid and Invirase are two products from F. Hoffmann la Roche the parent company of Roche (Nig) Ltd, as such drugs are imported from the parent company Switzerland.

In sourcing these drugs a forecast is made and when stock are exhausted. It takes some time before new stock is obtained.

(b) Packaging and branding:-

Packaging deals with the development of a container and graphic design for a product. It makes the product more versatile, safer and easier to use. Effective packaging serves various functions like protection, convenience, promotion, identification and information.

Hivid and Invirase comes in a coloured bottle of 100 tablets and 270 capsules respectively. With an outer package. This bottles are not convenient to carry, with an increase tendency of drug loss and faking. Packaging can therefore contribute to lack of compliance of drug therapy with a great potential of causing drug failure and death.

Branding indicates quality, guarantee e.t.c but the element of branding that cannot be spoken, which is often a symbol or design is called a Brand mark. This is a legal designation indicating the owners having an exclusive right or use of a brand, and others are prohibited from using it by law.

The trade name for Saquinavir is Invirase while the trade name of Zalcitabine is Hivid. This has helped the buyer recognise and identify the products.

(c) Distribution System:-

The movement of goods from point of production to the point of consumption is called distribution.

Producers now use intermediaries to deliver goods to ultimate buyer's now called middlemen who can be

wholesalers, retailers, or agents. Depending on the nature of the product, number of customer and the channel used the service of one or more middlemen can be employed. To ensure availability of the product to all those in need several channel of distribution are used by Roche (Nig) Ltd.

- (a) The use of Depots.
- (b) Medical Representatives.
- (c) Approved Roche wholesalers.

- * The approved Roche wholesaler do not stock much as large amount of money is required for a purchase which gives little profit.
- * The medical representatives are given only a pack of each at a time. This does not achieve the desired results as more than a pack may be required.

Pricing:

Pricing is generally used to describe the money value of an item with money being used as the common denominator of value. The price of a product or service is a major determinant of the market demand for the item as it affects the firms competitive position and its share of the market.

Pricing is a highly visible element in the markets mix as such a powerful strategic weapon for the marketer, a careful decision on pricing is very important, in Roche only the top management are involved in taking this decision. For Hivid and Invirase a premium price was fixed, which did not afford many AIDS patient to benefit from Roche's Anti-aids drugs.

Promotion:-

Promotion is the company's communication with its potential users which is aimed at informing and persuading them to buy its products. It involves such activities like personal selling, advertising, sales promotion and publicity.

Most efforts made by a company in developing its product, pricing and distribution system, will not be realised by target audience, until the company communicates those developments to the customers.

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Advertising:-

Advertising has been defined as any paid form of non-personal presentation and promotion of ideas, goods or service by an identified sponsor.

For Ethical drugs like Hivid and Invirase the law does not allow for advertisement on Radio and Television as such had to advertise only on Medical Journals, and reprints of materials to the medical communities.

Personal Selling:-

This is the process of informing customers and persuading them to buy products through personal contact in an exchange situation. This the field force of Roche (Nig) Ltd does very well.

Sales Promotion:-

After the sales of the products in 1997. Roche strategy for 1998 was the sales promotion, for any purchase of Hivid and Invirase the patient gets a 50% reduction on Hivid total cost then reduced from N55,905.66 to N48,068.33.

This sales promotion in 1998 proved to be an effective marketing strategy for marketing anti-aids drugs in Nigeria. A look at the monthly Area North Sales performance in units of 1997 compared to 1998 will be helpful in accessing the effect of sales promotion as an effective marketing strategy by Roche (Nig) Ltd. This is presented in the next page.

1997 AREA NORTH ANTIRETROVIRAL SALES

(A) MONTHLY SALES OF HIVID IN UNITS BY MEDICAL REPS.

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
N1	1	1	7	4	2	4	3	4	26
N2	0	1	0	1	0	3	1	0	6
N3	0	0	0	7	0	2	3	0	12
N4	0	0	0	0	0	0	0	0	0
N5	0	0	0	1	0	2	1	0	4
Total =									48

(B) MONTHLY SALES OF INVIRASE IN UNITS BY MEDICAL REPS.

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
N1	1	1	8	4	2	4	0	2	22
N2	0	2	0	1	1	3	2	0	9
N3	0	0	0	8	0	2	2	0	12
N4	0	0	3	0	0	0	0	0	3
N5	0	0	0	1	0	2	1	0	4
Total =									50

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1998 AREA NORTH ANTIRETROVIRAL SALES

(A) MONTHLY SALES OF HIVID IN UNITS BY MEDICAL REPS.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
N1	11	6	2	2	11	5	6	5	0	7	55
N2	2	6	9	8	6	8	10	5	5	9	68
N3	13	2	9	2	18	4	13	9	7	2	79
N4	0	5	0	5	2	1	4	5	0	5	27
N5	0	0	0	1	2	0	0	0	12	0	15
Total =											244

(B) MONTHLY SALES OF INVIRASE IN UNITS BY MEDICAL REPS.

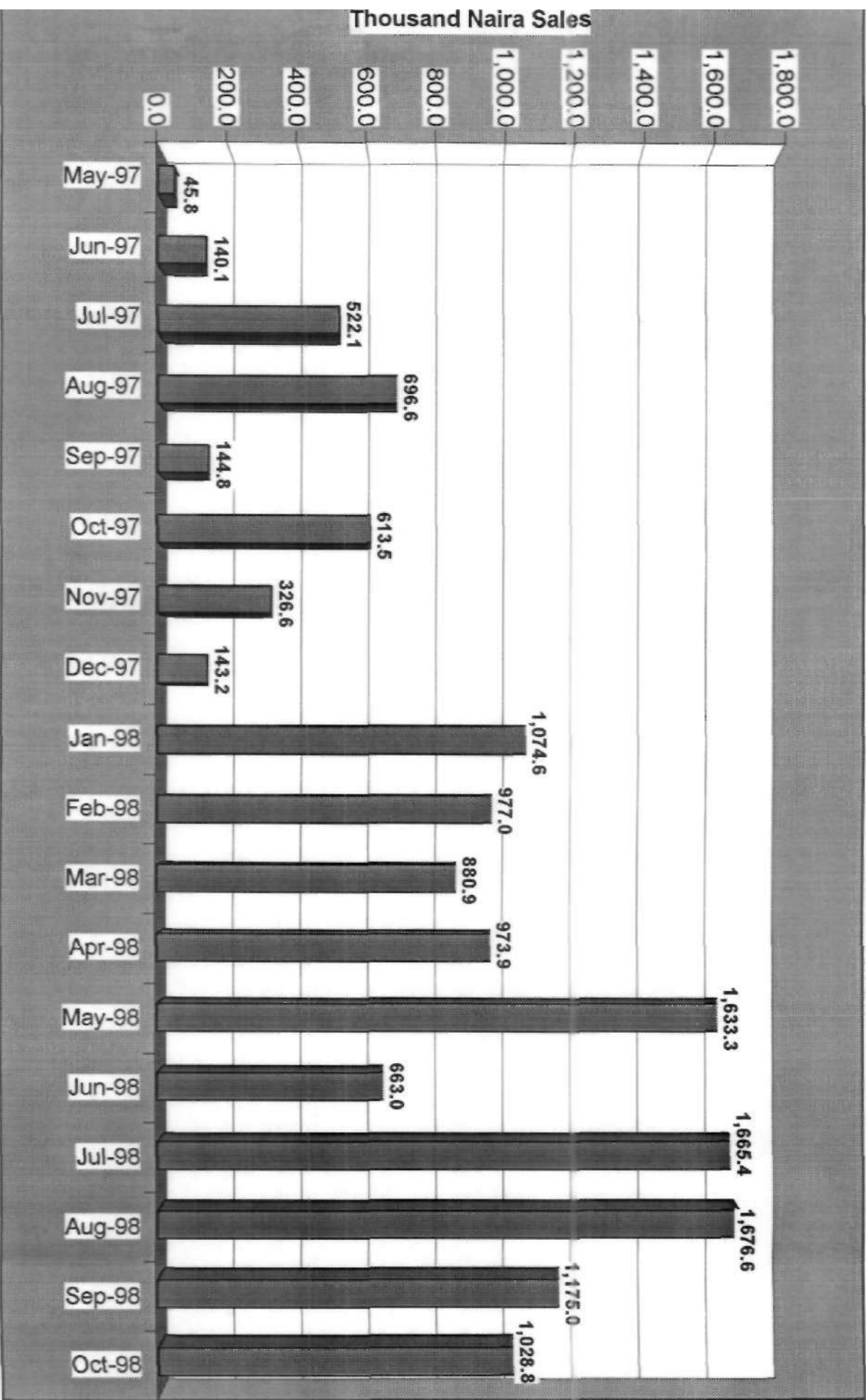
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
N1	6	6	0	0	7	3	2	6	6	3	39
N2	2	6	8	10	1	3	17	4	5	9	65
N3	12	2	11	2	21	4	11	10	5	4	82
N4	0	5	0	2	2	3	5	5	0	5	27
N5	0	0	0	7	2	0	0	12	12	0	33
Total =											246

AREA NORTH: ANTIRETROVIRAL MONTHLY SALES IN NAIRA (MAY 97 - OCT 98)

(a)	<u>May 97 - Dec 97</u>	<u>MONTH</u>	<u>AMOUNT</u>
			<u>(NAIRA)</u>
		May-97	45,800
		Jun-97	140,100
		Jul-97	522,100
		Aug-97	696,600
		Sep-97	144,800
		Oct-97	613,500
		Nov-97	326,600
		Dec-97	143,200
		TOTAL	<u>2,632,700</u>

(b)	<u>Jan 98 - Oct 98</u>	<u>MONTH</u>	<u>AMOUNT</u>
			<u>(NAIRA)</u>
		Jan-98	1,074,600
		Feb-98	977,000
		Mar-98	880,900
		Apr-98	973,900
		May-98	1,633,300
		Jun-98	663,000
		Jul-98	1,665,400
		Aug-98	1,676,600
		Sep-98	1,755,000
		Oct-98	1,028,851
		TOTAL	<u>12,328,551</u>

AREA NORTH: ANTIRETROVIRAL MONTHLY SALES (MAY-97 TO OCT-98)

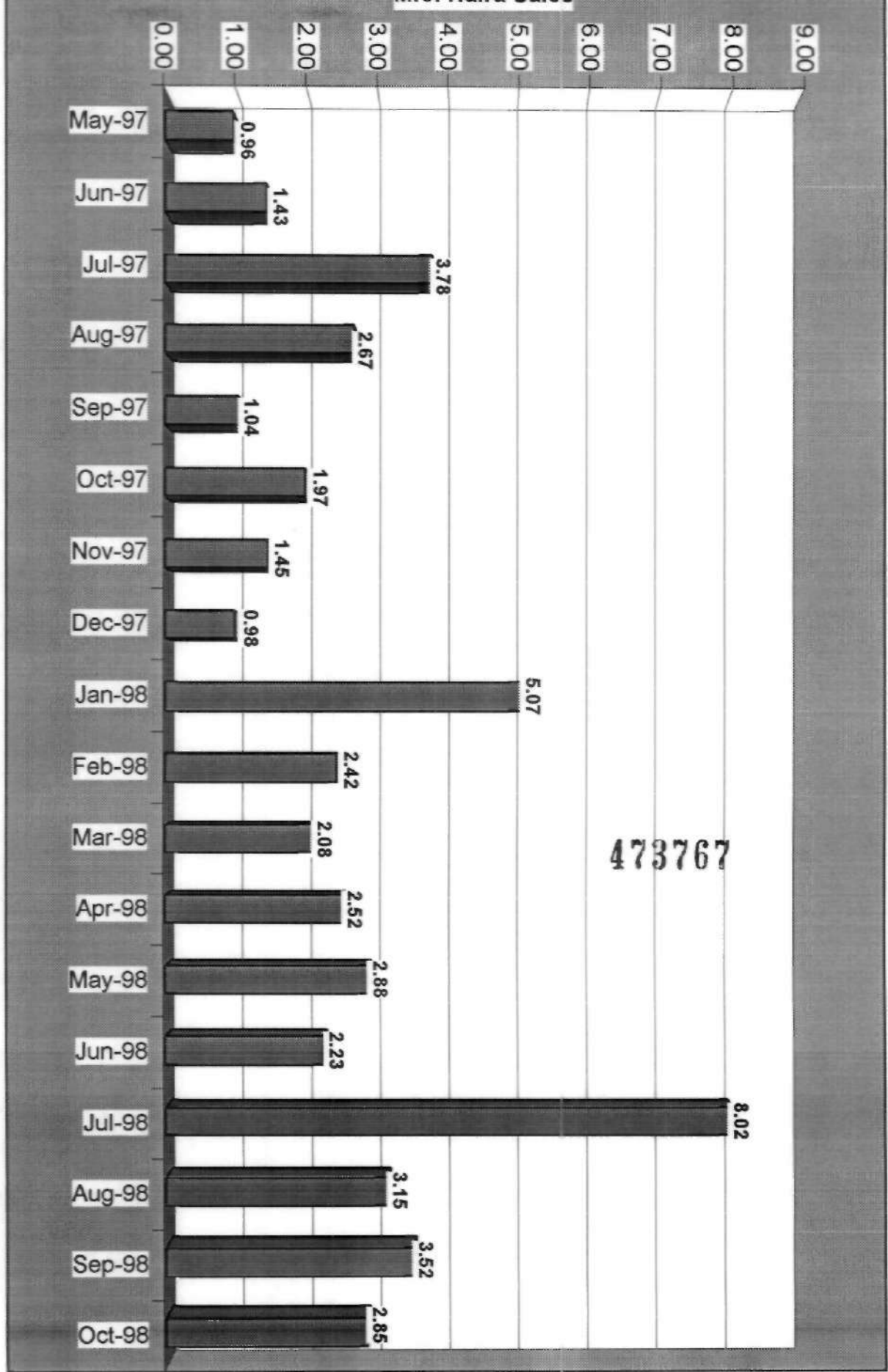


ROCHE: TOTAL ANTIRETROVIRAL MONTHLY SALES IN NAIRA (MAY 97 - OCT 98)

(a)	<u>May 97 - Dec 97</u>	AMOUNT	
		<u>MONTH</u>	<u>(NAIRA)</u>
		May-97	960,000
		Jun-97	1,430,000
		Jul-97	3,780,000
		Aug-97	2,670,000
		Sep-97	1,040,000
		Oct-97	1,970,000
		Nov-97	1,450,000
		Dec-97	1,450,000
		TOTAL	<u>14,750,000</u>

(b)	<u>Jan 98 - Oct 98</u>	AMOUNT	
		<u>MONTH</u>	<u>(NAIRA)</u>
		Jan-98	5,070,000
		Feb-98	2,420,000
		Mar-98	2,080,000
		Apr-98	2,520,000
		May-98	2,880,000
		Jun-98	2,230,000
		Jul-98	8,020,000
		Aug-98	3,150,000
		Sep-98	3,520,000
		Oct-98	2,850,000
		TOTAL	<u>34,740,000</u>

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ROCHE: ANTIRETROVIRAL MONTHLY SALES (JAN-97 TO OCT-98)

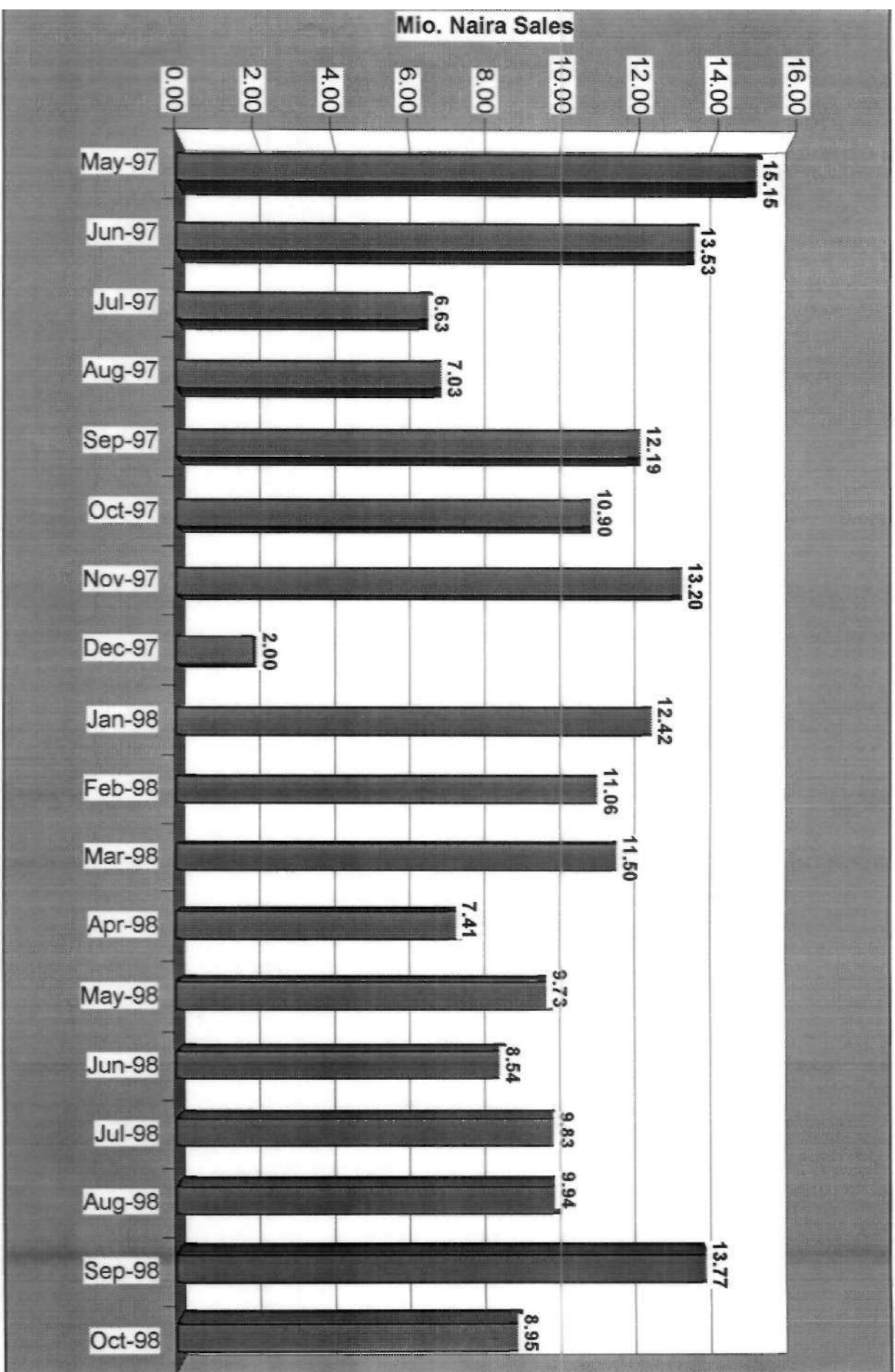
AREA NORTH: TOTAL MONTHLY SALES

(a)	<u>May 97 - Dec 97</u>	<u>MONTH</u>	<u>AMOUNT</u>
			<u>(NAIRA)</u>
		May-97	15,150,000
		Jun-97	13,530,000
		Jul-97	6,630,000
		Aug-97	7,030,000
		Sep-97	12,190,000
		Oct-97	10,900,000
		Nov-97	13,200,000
		Dec-97	<u>2,000,000</u>
		TOTAL	<u>80,630,000</u>

(b)	<u>Jan 98 - Oct 98</u>	<u>MONTH</u>	<u>AMOUNT</u>
			<u>(NAIRA)</u>
		Jan-98	12,420,000
		Feb-98	11,060,000
		Mar-98	11,500,000
		Apr-98	7,410,000
		May-98	9,730,000
		Jun-98	8,540,000
		Jul-98	9,830,000
		Aug-98	9,940,000
		Sep-98	13,770,000
		Oct-98	<u>8,950,000</u>
		TOTAL	<u>103,150,000</u>

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AREA NORTH: MONTHLY SALES (JAN-97 TO OCT-98)



5.2 ANALYSIS OF DATA

ANTI-AIDS DRUG SALES FOR 1997.

- (a) Total sales of anti-aids drugs for 8 months between May 97 to Dec 97

Hivid Tablets - 48 packs x100 s

Invirase Capsules - 50 packs x270 s

- (b) Average Monthly Sales

Hivid Tablets - 6 packs

Invirase Capsules - 6.2 packs

- (c) Average Sales per Medical Representative (5 Medical Reps)

Hivid Tablets - 1.2 packs

Invirase Capsules - 1 pack

In 1997 a total pack of 48 Hivid and 50 packs of Invirase was sold in eight months, with an average monthly sales of 6 packs of both Hivid and Invirase capsules which represent just one pack of Hivid and one pack of Invirase sold by a medical representative in a month.

Total cost of anti-retrovirals in 1997 for Area North was N2,632,700 with an average of N329,087 per month.

ANTI-AIDS DRUG SALES FOR 1998.

- (a) Total sales of anti-aids drugs for 10 months between Jan 98 to Oct 98

Hivid Tablets - 244 packs

Invirase Capsules - 246 packs

- (b) Average Monthly Sales

Hivid Tablets - 24.4 packs

Invirase Capsules - 24.6 packs

- (c) Average Sales per Medical Representative (5 Medical Reps)

Hivid Tablets - 4.8 packs

Invirase Capsules - 4.9 packs

For 1998, a total of 244 packs of Hivid and 246 packs of Invirase was sold within a ten month period, an average monthly sales for North Area of 24 packs and about 5 packs of both Hivid and Invirase sold per Medical Representative.

Total cost of anti-retrovirals in January - October 1998 for Area North was ₦12,328,551 with an average of ₦1,232,855 per month. This indeed is very encouraging, percentage contribution to Area.

**AREA NORTH CONTRIBUTION TO TOTAL ROCHE (NIG) LTD.
ANTI-AIDS DRUG SALES**

(a) 1997

The total Area North anti-aids drugs for 1997 was N2,632,700, while total Roche anti-aids drug sales over the same 8 month period was N14,750,000. Area North contributing 17.84% of total Roche sales.

(b) 1998

While Total Area North Sales in 1998 was N12,328,551 out of Total Roche anti-aids sales over the same 10 month period was N34,740,000 representing 35.48% of total Roche sales.

ANTI-AIDS CONTRIBUTION TO TOTAL AREA NORTH SALES

FOR 1997

Total Sales of Hivid / Invirase is N2,632,700 while that of Area North over the same eight month period was N80,630,000 representing 3.26%.

FOR 1998

Total Sales of Hivid / Invirase is N12,328,551 compared to the total Area North Sales of N103,150,000 for the same 10 month period, represents 11.95% of total percentage contribution to Area North.

5.3 ANALYSIS OF DATA

Marketing has been defined as a function through which firms respond to changes in their environment, it is also taken as all activities involved in the determination and satisfaction of customer's needs at a profit.

While a strategy on the other hand is a "Pattern of purposes and policies which are unique to the firm". More formally, a strategy is a planned course of action in pursuit of clearly stated objectives in the light of limited resources, a changing environment, and intelligent competition.

In assessing the marketing strategies employed by Roche (Nig) Limited in marketing their Anti-aids drugs it becomes very imperative that the drugs should be available all the time, that the drug should be accessible when required and Affordable for the patients in need, it is only when these factors are taken into consideration that a meaningful process in controlling and preventing the spread of HIV in Nigeria will be in progress.

Availability:

The source of these drugs is from the parent body in Switzerland this is good. Faking of these products will be difficult but Roche Nig Ltd should ensure that these drugs are available all the time to prevent Stock-Outs and break in therapy which may cause more problem.

The packaging of the two Roche products in bottles results to drug loss and lack of compliance as they are bulky to carry and very easy to lose, as a result Roche Nig Limited should consider packing the drugs in blister's which are easier to carry, reduces drug loss and environment friendly. This will also aid compliance.

Accessibility:-

Availability of the AIDS drugs by Roche (Nig) Ltd in the right quantity is important, but equally important is the fact that the drugs are close to the consumers or ultimate buyer. The present channel of distribution employed by Roche (Nig) Limited need to be improved for the benefit of the customers and Roche as a company.

The wholesalers of Roche (Nig) Limited are not motivated to stock these drugs as profit is low. Roche should therefore increase the profit margin for wholesaler to encourage purchase and stocking of these products as the wholesaler have a larger reach to customers. The stock level for the field force is very low, the stock for individual medical representatives should be increased to encourage more of on the spot sales.

Roche should encourage more Government/Parastatal business as this will improve accessibility of the products to the customers and possibly at a reduced price as Government can do so. On the alternative some stock of the products can be kept at reputable teaching hospitals for sale on return basis. These measures when taken will improve on accessibility of these products.

AFFORDABILITY:-

The price of a product usually is a determinant of the market demand for the item. A high priced product like the ANTI-AIDS drug from Roche because less affordable and only few people are opportune to use. The effect of sales promotion in 1998 clearly showed an increase in the number of purchase and usage.

6.1 SUMMARY

There is no area, no matter how rural, that is too secluded or isolated for HIV transmission, the AIDS epidemic in Nigeria, largely invisible and insidious as it began, is now visible in what should have been the unlikely sites, that is, rural communities in the country. The years of dissemination of HIV are now surfacing, as evidenced by the ever increasing number of HIV/AIDS related admissions in our health settings and deaths in the communities. AIDS have no regard for age, sex, status and tribe and does not discriminate in transmission making it more deadly.

The discovery of new drugs by pharmaceutical companies like Roche (Nigeria) Limited, and the subsequent dramatic improvements in clinical outcomes of these recent drug therapies have led to hope of HIV infection becoming life-long manageable condition.

In assessing the strategies of marketing these drugs in Nigeria with Roche (Nigeria) Limited as a case study it was noticed that a very important factor which constitute a barrier to the purchase and usage of these drugs is the price. Nigeria is a developing country with low per capital income and high number of infected cases of HIV/AIDS, yet

limited resources. Infected people are willing and ready to use the drugs, if only to live a longer, healthier life but the drugs are simply out of reach, there is a need therefore to find solution to this quagmire.

With a reduction in price by Roche (Nig) Ltd in 1998 through a sales promotion came a sudden increase in sales, which shows that with a further reduction in price more patients (customers) will be able to afford.

When introducing a new product, aggressive promotion is desirable the fieldforce are therefore important to drive the required sales. Adequate information on the disease condition and sound product knowledge is necessary for them to sell the features and benefits of the products to Doctor's that prescribe and to patient that buy and use. Proper training is therefore very important to the field force.

The study also shows that availability and accessibility of these products is vital. This factors contributed to the success story of Roche (Nig) Ltd, the distribution network was properly monitored and controlled to prevent faking or adulteration which reassured customer's the commitment of Roche towards ensuring the availability of drugs, as part of their coperate responsibility in building a healthier tomorrow.

473767

This research work further confirms that AIDS is real in Nigeria, and that people are willing to buy and use anti-aids drugs, hoping to live longer, and get better, hoping to survive, but these drugs are simply out of reach to patients that are in need.

6.2 CONCLUSION

AIDS is very serious health problem in Nigeria. The potential for wide spread is great and the debilitating effect on the economy and human lives is enormous. HIV infection/AIDS should therefore be treated as a National Emergency.

Roche (Nig) Ltd was the first pharmaceutical company to respond to this emergency by introducing two anti-retroviral drugs that are effective and potent, making AIDS become a manageable life-long disease, no longer a death sentence, but a chronic disease condition, this they did by introducing the drugs through a unique marketing strategy.

This study which is the assessment of the marketing strategies of anti-aids drugs in Nigeria, a case study of Roche (Nigeria) Limited is of the conclusion that the various marketing strategies employed by Roche contributed greatly to the success of the products, this includes

- * The introduction of two products that act differently gave Roche a competitive edge.
- * Price reduction in the form of sales promotion ensured purchase of both products (Hivid and Invirase) by patients.
- * Proper sourcing ensured availability of stock from Switzerland preventing stock out.
- * Branding of products for easy identification
- * Adequate monitoring and control of stock movement reduced the chances of faking.
- * Proper product knowledge by the field force was responsible for the sales achieved.
- * Promotion by Roche in the form of advertisement, seminar's and presentations during AIDS conferences, increase awareness of Roche drugs.

To improve the marketing strategies and subsequently gain more sales, recommendations have been made which will be very useful.

6.3 RECOMMENDATIONS

The HIV/AIDS epidemic demands development of innovative yet realistic approaches in its management. The saying that prevention is better than cure remain very relevant in AIDS, as there is no known cure. The control of the disease via prevention through awareness programmes remain a vital factor in curbing the disease.

Unfortunately, while some countries are successfully reducing the rate of spread of the disease through prevention current statistics show an increase in Nigeria. There should therefore be a concerted effort to increase the awareness of the disease and the necessary preventive measures taken. A school of thought have suggested that the first three letters of the alphabet will be useful, A, B, and C.

Which stands for A - Abstinence

 B - Being faithful

 C - Condom

A - Abstinence, for those not married

B - Being faithful, for those that are married

C - Condom, for safe sex use a condom.

For those not infected by the virus preventive measures will be adequate, but for those already infected it creates a lot of problems to the person infected like loss of human dignity, violated right, and

financial hardship not only to the person but to his family and the community at large.

Eric Van Praag said at the forum on AIDS and drug addition during a conference in the Netherlands that “ To pay for aids therapy people in developing countries must sell their cattle, houses and even wives”. This is a serious situation and should be handled as such.

The following recommendation are forward as anti-aids drugs can make a difference between life and death, patients and those in need should be able to afford the drugs in this regard a multidimensional approach becomes imperative.

GOVERNMENT

- * The government should purchase these drugs directly from pharmaceutical companies through the federal or state government and subsidise or give these drugs free to patients.
- * Remove all duty rate, tax on the product and promotional materials like book, journals and literature on AIDS. This will reduce the cost of the drugs and increase preventive measures.
- * To give concession on forex for importation of anti-aids drugs as a measures to further reduce price.

- * Increase awareness, and sensitive the public through the National and state AIDS and sexually transmitted disease control programmes (NASCP), down to the grassroots.
- * Provide and upgrade the medical facilities of our tertiary institution for easy management of the disease.
- * Ensure availability and accessibility of professional staff, to allow for easy referral at the hospital, to ensure proper management of patients.

ROCHE (NIGERIA) LIMITED

This research work is a case study of Roche (Nigeria) Limited, in assessing the strategies of marketing its anti-aids drugs it was observed that price was a major constraint to purchase.

The parent company in Switzerland should reduce the price of these drugs to developing countries like Nigeria, due to low purchasing power by its citizens.

Provide more drugs, to allow alternative for management of patients and to also maintain a competitive edge against its competitor (Glaxowellcome)

To participate more on government business as the government can make a large purchase at a time, this will definitely improve Roche business on anti-retrovirals.

Improve on the package, from bottles to blisters which will reduce loss, prevent faking and is environmental friendly.

Convenience of drug administration ensures compliance. The large number and frequent dosing of Roche antiretrovirals should be improved to ensure proper daily usage of medication.

Roche (Nig) Ltd has made an effort in providing anti-retroviral drugs for the management of AIDS in Nigeria. This indeed is a good sign for patients with the disease, the patients are now hoping that Roche will find a cure for this deadly disease.

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1. AKANET M. S. (1994): Introduction to Marketing: Unpublished Lecture Notes. A. B. U. Zaria.
2. BERG T. & ABE SHUCHAM (1963) Product Strategy and Management; Holt Rinehart Winston, First Edition. Pg. 9
3. BUZZELL, NOURSE, MATTHEWS & LEVITT (1971) Marketing a Contemporary Analysis: McGraw-Hill Inc: Second Edition Pg. 217
4. CHANDLER A. D. Strategy and Structure (1962)
5. CUNDIFF S. G. (1979): Fundamentals of Modern Marketing Prenticellall, Inc., Englewood Cliffs, New Jersey Third Edition, Pg. 174-180, 288-292
6. DIRKSON KROEGER LOCLEY (1968): Reading in Marketing: Richard D. Irwin, Inc., First Edition. Pg. 3-4
7. ELVY B. H. (1980): Marketing Made Simple: W. H. allen and Co. Ltd., London
8. W. F. GLUECK (1972) Business Policy: Strategy formulation and Management Action.
Copy Right: McGraw-Hill.
First Edition. Pg. 25
9. KOTLER PHILIP (1982) Marketing Management: Analysis Planning and Control Prentice-Hall Inc. Englewood Cliffs, New Jersey. Fourth Edition. Pg. 351, 466, 647
10. NWOKOYE N. C. (1987) Modern Manketing for Nigeria: McMillan Publisher London
11. ONAH J. O. Marketing in Nigeria

12. RADFORD K. J. (1980) Strategic Planning: An Analytical Approach. Reston Publishing Co. Inc. A Prentice-Hill company reston, Virginia. First Edition. Pg. 23
13. ROBERT R. R. (1976) Corporate Strategy and Product Innovation
14. STANTON W. J. Fundamentals of Marketing: McGraw-Hill Inc.
15. STEINER G. A. & MINNER J. B. Management of Policy and Strategy 1977
16. AFRICAN CONCORD 12th October 1992. Pg. 36
17. Adkins et al (1997): Drugs 53 (6) 1054 - 1080
18. AIDS in Africa, a manual for physicians. WHO (1992).
19. Altice Fredrick and Friedland Gerald (1997): Dis Manage Health Ourcomes, 1 (6), 305 - 321.
20. Amanda Mocroft et al (1996) AIDS 10 1057 - 1065.
21. Ann C. Collier (1996): The New England Journal of Medicine 334, 1011 - 1017.
22. BHIVA guidelines for antiretroviral treatment of HIV Sero positive individuals: The Lancet, vol. 349, No. 0958, pg. 1086 - 1092
23. Col. (Dr) O. S. Njoku (Military Hospital, Yaba): Personal Commuication (1997).
24. Current problems in Pharmaco Vigilance: Medicines control Agency Volume 23, May, 1997
25. Hammer S. M. et al ACTG 175.
26. Invirase product monography.
27. Martins Markowitz: Protease inhibitors - a new family of drugs for the treatment of HIV infection.
28. Moyle and Barton (1996): Journal of antimicrobial Chemotherapy 38. 921 - 925.

29. N V 14256 Study (Saquinavir + ddC).
30. Roche/Abbot collaborative study (Ritonavir + Saquinavir).
31. Saravolatz Loius et al (1996): The New England Journal of Medicine 335: 1099 - 1106 (Oct. 10)
32. Stefano Vella (1994): AIDS Vol. 8 Suppl 3, S 26 - S 29.
33. Stephen A. Spector (1994): AIDS (Suppl. 3) S15 - S18.
34. Roche 20th Anniversary in Nigeria - 1978 - 1996.

RC: 16806

VAT: IKV 1200216806

FEBRUARY 18, 1998

Dear Customer,

ROCHE OFFERS SUCCOUR TO HIV/AIDS PATIENTS

Effective from January 1, 1998, the following programmes have been put in place.

1. All patients on **HIVID*** and **INVIRASE*** will hence forth get a 50% discount on **HIVID***. Thus, the cost structure for one month therapy is now:

HIVID* tabs 0.75mg x 100s	-	7,837.33
INVIRASE* caps 200mg x 270	-	40,231.01
		=====
Total	-	48,068.34
		=====

* **THIS OFFER WILL TERMINATE ON OR BEFORE
31ST OCTOBER, 1998.**

2. For all patients on **HIVID*** and **INVIRASE*** combination therapy, their CD4 test performed on a quarterly basis will be refunded (either directly or through their treating physicians) on presentation of the laboratory receipt. The maximum limit is =N=3,000 per test.

In the meantime, the facilities for CD4 testing are available in LUTH (Lagos), NIMR (Lagos), Military Base Hospital (Yaba, Lagos) and NIPRD (Abuja).

Together we can improve the lots of People Living With HIV/AIDS (PLWHA).

Yours faithfully,
ROCHE (NIGERIA) LIMITED
(PHARMACEUTICALS DIVISION)

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Roche

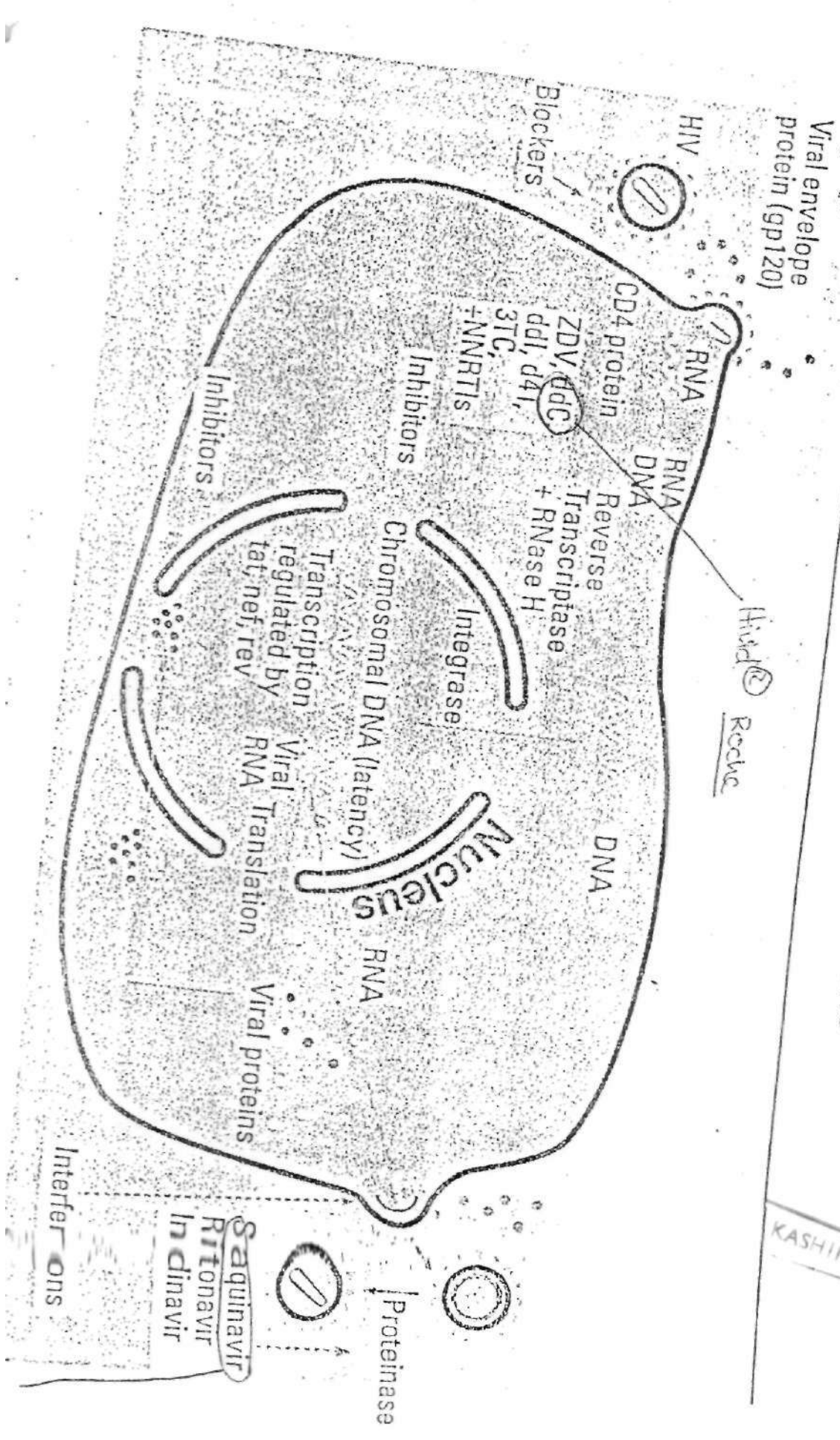
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Building a heathier tomorrow

Lifecycle of HIV showing points where drugs intervene

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monitoring at frequent intervals by the physician is strongly recommended. Individuals with moderate to severe peripheral neuropathy as evidenced on examinations accompanied by objective findings such as loss of the Achilles reflex or impaired sensation, or by reliance on analgesics for pain relief, are advised to avoid blood urea levels.

Paracetamol is a rare toxicity reported in individuals receiving Hivid. The total incidence of clinical paracetamol or asymptomatic elevated serum amylase levels in Hivid recipients is <1%. Caution should be exercised when administering Hivid to any patient with a history of paracetamol or known risk factor for the development of pancreatitis.

Extreme caution should be observed when administering fluid to patients with elevated baseline serum amylase levels. These individuals should have frequent monitoring of serum amylase, and the significance of an asymptomatic increase in serum amylase levels in hospitalized patients prior to starting fluid is unclear. Fluid administration to individuals whose baseline serum amylase is elevated should be discontinued immediately if any symptoms suggestive of pancreatitis develop, until a definitive diagnosis can be established.

existing calcium, and other parameters suggestive of increasing pancreatic risk if clinical diagnosis is assumed. Blood glucose may be interpreted as important if treatment with another drug is thought to cause pancreatitis; it is routine administration of serum enzymes may be useful in identifying individuals with elevated levels of amylase or lipase. However, the use of these tests is not developed on a broad test of responsiveness, and the use of these tests is not recommended for the use of fluid in those individuals with decreasing pancreatic reactivity or history of pancreatitis during intravenous contrast administration by the physician to determine if the potential benefit of the drug outweighs the risk of exacerbation of these conditions.

Retention rates of esophageal ulcer, hyperglycemia and hypotension reactions have been reported in individuals receiving blood therapy. Intervention of fluid should be considered in those who develop esophageal ulcers and that do not respond to specific treatment for esophageal ulcers.

Patients with preexisting hyperglycemia should have periodic monitoring of blood glucose levels. Patients who receive medications that are associated with renal failure while on HIV therapy should have their renal function monitored at regular intervals.

Complete blood counts and clinical chemistry tests including serum amylase and lipase should be performed before initiation of treatment with HIV and at appropriate intervals for treatment.

teratogenic effects. In the most recent study, it has been shown to be teratogenic in C57BL/6N mice at doses of 2.1, 250 and 8,150 times the maximum recommended clinical dose. In rats, teratogenicity was teratogenic at a dose of 5,500 times the maximum recommended clinical dose but not at a dose 1,250 times the clinical dose. There are adequate and well-controlled studies in pregnant women.

in pregnancy. In Northern pregnancy has not been established in adequate and well-controlled studies. Women should not receive Mivad unless they are using effective contraception during the period. Mivad should be used during pregnancy only if the potential benefit justifies the potential risk.

of mother's milk. Zalcitabine is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions from zalcitabine in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

During the study, 11 patients with early and advanced AIDS, 10 patients with late and advanced AIDS, and 10 patients with late and advanced AIDS, were included in the study. Many of the HIV-infected subjects participating in these clinical trials had, at the time of the study, signs and symptoms of HIV disease which were experienced as adverse events during the study. It is therefore difficult to

introduced (at 50% dose level, 0.375 mg every 8 hours). If the patient is not tolerated in a timely manner, Hydri should only be re-

patients prior to starting Hivid is unclear. Hivid treatment in individuals whose baseline serum aspartate aminotransferase level is greater than 2.5 times the upper limit of normal should only be undertaken if the perceived benefit justifies the potential risk to the patient. Hivid should be discontinued if the serum aspartate aminotransferase level of a rising serum aspartate level associated with cytopenia, rising triglyceride level, or rising calcium or other laboratory level.

[illegible]

patients who receive medications that are associated with renal failure while on Rivid therapy should have their renal function monitored at regular intervals.

Laboratory tests

Complete blood counts and clinical chemistry tests including serum aminotransferase and triglyceride levels should be performed before initiation of treatment with Rivid and at appropriate intervals throughout treatment.

Pregnancy effects

It has been shown to be teratogenic in C57BL/6 mice at doses of 21,250 and 52,500 times the recommended human dose.

Maximum recombinant clinical dose but not at a dose 10,000 times the clinical dose. There are no adequate and well-controlled studies in pregnant women.

as a dose saving times the recommended clinical dose. Fetal bodyweight per litter was significantly decreased at doses of 250 and 62,500 times the maximum recommended clinical

use in human pregnancy has not been established in adequate and well-controlled studies. A woman should not receive Hydralazine unless they are using effective contraception during the study period. Hydralazine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

It is known whether zalcitabine is excreted in human milk. Because many drugs are excreted in human milk, and because of the potential for serious adverse reactions from zalcitabine in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

During the study, 11 patients with early and advanced AIDS, 10 patients with late and advanced AIDS, and 10 patients with late and advanced AIDS, were included in the study. Many of the HIV-infected subjects participating in these clinical trials had, at the time of the study, signs and symptoms of HIV disease which were experienced as adverse events during the study. It is therefore difficult to

known risk factor for the development of liver disease or for the development of liver disease.



2348977 FS
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Virase®

zalcitabine



protease inhibitor

Position

Indication: zalcitabine,
as 200 mg.

ries and effects

Virase is a potent and selective inhibitor of HIV protease. Unlike nucleoside analogues (zidovudine, etc.), zalcitabine acts directly on its viral target and does not require metabolic activation. Zalcitabine is active at nanomolar concentrations and displays a high antiviral therapeutic index in vitro.

Results in cell culture show that zalcitabine produces an additive to synergistic antiviral effect against HIV-1 in double and triple combination with various reverse transcriptase inhibitors (including zidovudine, zalcitabine, didanosine) enhanced cytotoxicity.

Resistance occurs between zalcitabine and reverse transcriptase inhibitors. Zalcitabine-resistant isolates of HIV-1 have proven fully sensitive to zalcitabine in vitro, reduced sensitivity to zalcitabine does not seem to arise readily.

Cross-resistance to other protease inhibitors is unlikely to occur. Zalcitabine may be used without precluding transfer to, or combination with, other HIV protease inhibitors which is not critically affected by the amino acid sequence. There is evidence that the combination of zalcitabine with zidovudine restricts the emergence of zidovudine resistance. Combination therapy with zidovudine and zalcitabine may reduce emergence of zalcitabine resistance.

Pharmacokinetics

Rate of absorption of zalcitabine is substantially increased when given with food. The presence of food also increases the time taken to achieve a maximum plasma concentration (C_{max}) from 3.0 hours to 3.5 hours. The mean plasma concentration (C_{max}) from 3.0 hours to 3.5 hours after food intake of food has been shown to be present for up to 2 hours after food intake. The mean absolute bioavailability is 4%. The low bioavailability is thought to be due to a combination of incomplete absorption and extensive first-pass metabolism.

Zalcitabine is extensively metabolized into the tissues. The mean steady-state volume of distribution following intravenous administration of a 12 mg dose of zalcitabine is 700 l. Zalcitabine shows a high degree of protein binding (approximately 85%) which is independent of concentration over the range 15–700 ng/ml. Zalcitabine is metabolized extensively via the hepatic route. More than 96% of zalcitabine is excreted in the feces within 48 hours of dosing. The elimination half-life of zalcitabine is in the range of 1.5–2.5 hours. Zalcitabine is metabolized by the specific isoenzyme, CYP3A4, responsible for more than 90% of the hepatic metabolism. Renal excretion is a very minor elimination pathway for zalcitabine (<1%).

Clearance is rapid, 80 l/h, which is close to hepatic plasma flow. Clearance was constant for intravenous doses of 6 mg, 36 mg and 180 mg.

After multiple oral doses (25–600 mg three times daily) in the presence of food, the increase in exposure (50-fold) was greater than directly proportional to the increase in dose (24-fold). Accumulation following multiple dosing (25–600 mg three times daily) in HIV-infected patients is modest. AUC was increased by 150% at steady state compared to single doses.

Concomitant use of zalcitabine and/or zidovudine has been studied in adults. Pharmacokinetic data suggest that the absorption, metabolism and elimination of each of the drugs are unchanged when they are used together.

Indications and usage

Combination therapy

Virase in combination with zalcitabine (Hivid® 360 mg) and/or zidovudine (Retrovir® ZDV) is indicated for the treatment of zalcitabine-experienced adult patients with advanced HIV disease with a CD₄ count ≤ 300 cells/mm³. Virase in combination with zidovudine (Retrovir® ZDV) is indicated for the treatment of zalcitabine-naïve adult patients with advanced HIV disease with a CD₄ count ≤ 300 cells/mm³.

For patients able to tolerate nucleoside analogue antiretroviral therapy, the combination of Virase with zalcitabine and/or zidovudine is recommended.

Monotherapy

Virase monotherapy is indicated for the treatment of adult patients with advanced HIV disease unable to tolerate therapy with nucleoside analogue(s).

Dosage and administration

Combination therapy

The recommended regimen for combination treatment is 600 mg of Virase three times daily within 2 hours after a meal, each of the three daily doses of Virase should be taken concomitantly with 0.75 mg of zalcitabine and/or 200 mg of zidovudine (1800 mg Virase total daily dose, 225 mg zalcitabine total daily dose and/or 600 mg zidovudine total daily dose).

Monotherapy

The recommended regimen for monotherapy in adult patients is 600 mg of Virase three times daily within 2 hours after a meal (1800 mg Virase total daily dose).

Restrictions on use

Contraindications

Virase is contraindicated in patients with hypersensitivity to zalcitabine or to any of the other components contained in the capsule.

Precautions

Children and elderly patients: The safety and efficacy of Virase in HIV-infected children (younger than 13 years) have not been established. Only limited experience is available in patients older than 60 years.

Hepatic impairment: In patients with a range of mild to moderate hepatic impairment exposure to zalcitabine was not correlated with laboratory markers of hepatic impairment. Increases in zalcitabine plasma concentrations may be expected in patients with severe hepatic impairment; however, such patients have not been investigated and should be treated with caution.

Renal impairment: In patients with a range of renal impairment from mild to moderate exposure to zalcitabine was not correlated with laboratory markers of renal impairment. No data are available in patients with more severe renal impairment. Although renal clearance is only a minor elimination pathway for zalcitabine, clinical judgment should be exercised when administering Virase to patients with renal insufficiency.

Information for patients: Virase is not a cure for HIV infection and patients may continue to acquire illnesses associated with advanced HIV infection, including opportunistic infections. Patients should also be advised that they may experience toxicities associated with co-administered medications such as zalcitabine and zidovudine.

Effects on ability to drive and use machines: It is not known whether Virase has an effect on the ability to drive and use machines.

Pregnancy, nursing mothers: It is not known whether Virase is safe to be used in pregnant women. Evaluation of zalcitabine and zidovudine in pregnant women is ongoing.

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