

The Processes and Requirements for the Introduction of Combination Therapy in Selected African Countries

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This report was made possible through support provided by the U.S. Agency for International Development, under the terms of Cooperative Agreement Number HRN-A-00-00-00016-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

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August 2002

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Executive Summary

A study was carried out to describe the processes involved in introducing a new combination therapy in four selected countries in Africa; Kenya, Tanzania, Ghana and Senegal. Processes of selection and procurement including legal and regulatory requirements pertaining to the introduction of a new combination therapy are described. The underlying assumption is that the decision making processes and the evidence base required for changing the first line policy have already taken place.

All four countries have an active drug regulatory authority that deals with the registration of drugs as well a functional law that governs the use of drugs in the country. The three Anglophone countries differ from the Francophone country in that the laws and regulations governing pharmaceuticals have been revised more recently. Senegal appears to have a more antiquated framework of drug regulations inherited, which have not been updated. The processes of drug registration and procurement in the three Anglophone countries –are clearly described in existing documentation and indeed clear guidelines exist for the registration of drugs, including the information and documentation required as well as standard documentation for application of drug registration in the respective countries. The Anglophone countries also appear to have updated quality control laboratories that have clear functions of quality assurance of registered and imported pharmaceuticals, which are -implemented to a greater or lesser extent. In Senegal, the quality control laboratories are currently undergoing restructuring, and quality assurance procedures are -currently being put in place.

All four countries participate in the WHO certification scheme; however none of them vigorously apply the scheme. The Anglophone countries have their own Good Manufacturing Practice (GMP) guidelines based on the WHO guidelines, however, while it is recommended that all pharmaceuticals being manufactured and imported into these countries comply with the GMP guidelines; this is not enforced in any way. Senegal does not have its own GMP guidelines and relies on the WHO guidelines. The only quality control condition is for the product to be registered and used in the country of origin.

While each of the four countries under discussion has very discrete requirements and procedures that are peculiar to that country, several parallels and similarities can be drawn. These are summarized and addressed in the discussion.

Introduction

Intensifying resistance to traditional affordable antimalarial therapies such as chloroquine and sulphadoxine-pyrimethamine has led to a search for new therapies. The most promising of all options being considered, is combination therapy (CT) including an artemisinin derivative in combination with another drug. The concept of combination therapy as a method of delaying resistance is widely employed in tuberculosis and antiretroviral therapy. CT using antimalarials is already being used in some Southeast Asian countries, but the potential for deploying it elsewhere, especially in sub-Saharan Africa, is yet to be fully understood. Various studies are underway to evaluate the effectiveness of selected combinations and the potential for implementing them in sub-Saharan Africa.

Several countries in Africa are poised to change their first line policy for malaria chemotherapy to an effective combination when made available. Assuming that CT is shown to be an effective therapy, all of the drugs employed would need to be included on the Essential Drugs Lists and Standard Treatment Guidelines of the countries in question. The drugs to be used by the health system will require market authorization and the public supply system would need to be able to purchase them efficiently.

Pharmaceutical products are universally recognized as different from other commodities and require special handling by trained personnel. They are subject to numerous controls at various levels and legal authority is granted to regulate their availability and use. The national drug authority is usually the legal entity associated with promulgation of regulations and issues about drug policy, legislation and registration and drug selection is usually carried out by a drug selection committee. However, malaria control programs have traditionally been parallel vertical entities within the Ministry of Health and drug selection of antimalarials often begins at the level of the malaria control program, on the basis of drug resistance studies and other evidence. The malaria control program may then confer and communicate with the national drug authority to suggest changes to the Essential Drugs Lists, Standard Treatment Guidelines and other therapeutic guidelines as relevant. The interaction between the malaria control program and the drug authorities is likely to vary between countries. The requirements and criteria are for introducing new drugs and in particular, new antimalarials are also expected to vary from country to country.

This study was carried out to identify the specific selection and relevant procurement issues related to new drug adoption in selected countries with a focus on Africa. The countries selected were: Tanzania, Kenya, Ghana and Senegal. The countries were chosen on the basis of the urgency of the situation in the country for the search for an effective replacement first line antimalarial therapy, the availability of data and on regional representativeness. The purpose of this study is to provide an understanding of the legal and regulatory processes and requirements for introducing a drug and guiding criteria for the development of Essential Drugs Lists and Standard Treatment Guidelines to aid the implementation of combination therapies in selected endemic countries, which are rapidly losing monotherapy options.

Methodology and limitations

The study was carried out using a combination of reviews of published and grey literature reviews, country strategic documents and guidelines and semi-structured telephone and personal interviews with key informants in each country. Personal interviews were carried out through existing staff in country and the use of a consultant in Senegal. No purposeful trips were made for this study.

One of the limitations of this study was that much of the information was not published or was incomplete and current practices had to be obtained through key informant interviews. In addition, countries such as Senegal did not have clear guidelines on the processes required, particularly with regard to the specific requirements for various combinations.

In this review, Chapters 1-4 describe the processes of registration and procurement in each country, while chapter 5 discusses similarities and differences between them and draws some parallels between the four countries.

Chapter One

Kenya

ACRONYMS

C&RS	Department of Curative and Rehabilitative Services
DFID	Department for International Development (United Kingdom)
DMS	Director of Medical Services
DPC	Drug Procurement Committee
EDL	Essential Drugs List
EDP	Essential Drugs Program
GOK	Government of Kenya
GMP	Good Manufacturing Practices
INN	International Non-proprietary Name
ITBN	Insecticide-treated bed nets
KEDL	Kenya Essential Drugs List
KEMRI	Kenya Medical Research Institute
KEMSA	Kenya Medical Supplies Agency
KEVDL	Kenya Essential Veterinary Drugs List
KNDP	Kenya National Drug Policy
KNDPIP	Kenya National Policy Drug Implementation Program
MCU	Malaria Control Unit
MEDS	Mission for Essential Drug Supplies
MOH	Ministry of Health
MSCU	Medical Supplies Coordinating Unit
MSH	Management Sciences for Health
NCST	National Council for Science & Technology
NGO	Non-governmental Organization
NMCP	National Malaria Control Program
NPTC	National Pharmacy & Therapeutics Committee
NQCL	National Quality Control Laboratory
PPB	Pharmacy & Poisons Board
QA	Quality Assurance
SP	sulphadoxine/pyrimethamine
STG	Standard Treatment Guidelines
STI	Sexually transmitted infections
TEC	Technical Evaluation Committee
USAID	United States Agency for International Development
WHO	World Health Organization

Introduction

Mounting resistance to chloroquine through the 1980s and 1990s has rendered it ineffective in much of Kenya and new guidelines published in 1998 by the National Malaria Control Programme (NMCP)^{1 2} recommend that sulphadoxine/pyrimethamine (SP) be used as the first-line of treatment for malaria. The recommended second line drug is amodiaquine (AQ) while quinine is to be used for the treatment of severe resistant malaria. However, since 1999, SP has shown signs of reduced sensitivity in several parts of the country³. Policy makers are thus challenged with the choice of a replacement drug for SP. Among the options being considered are combination therapies using an artemisinin derivative.

The purpose of this report is to discuss the processes and the requirements for the introduction of a new combination antimalarial drug in Kenya. The processes described are based on the underlying assumption that the policy selection and decision making processes have taken place. The report describes the legal and regulatory requirements for antimalarial combinations, the governing bodies and the procurement processes in operation in the country.

² Ministry of Health, Republic of Kenya. National guidelines for diagnosis, treatment and prevention of malaria for health workers. Malaria Control Programme, Ministry of Health, Republic of Kenya, January 1998.

² Ministry of Health, Republic of Kenya. A simplified national guideline on malaria control for community resource persons. Malaria Control Programme, Ministry of Health, Republic of Kenya, September 2000.

³ Shretta, R., et al. A political analysis of corporate drug donations : the example of Malarone® in Kenya. Health Policy and Planning: 16(2): 161-170.

Legal Processes and Requirements

Drug Registration

Drug registration is a regulatory mechanism for controlling the pharmaceutical products in Kenya. It ensures that the drug products that reach the consumers are safe and effective. The process of drug registration started in Kenya in 1981 following the publication of the Pharmacy & Poisons (registration of drugs) Rules, 1981, and related documents under the provision of the Pharmacy and Poisons Act, Cap 244.

Pharmaceutical products, including antimalarial combination therapies using artemisinin derivatives, intended both for Kenya (manufactured or imported) for use in the public and private sectors as well as for export must be registered with the Pharmacy and Poisons Board.

The “Pharmacy and Poisons (Registration of Drugs) Rule 1981”⁴ states that:

“No person shall import, manufacture for sale or sell any drug in Kenya unless that drug has been registered in accordance with the provisions of these rules”.

Box 1: The Pharmacy and Poisons Act

The Pharmacy and Poisons Act guides the work of the Pharmacy Division⁵. It is an Act of Parliament to make better provision for the control of the profession of pharmacy and the trade in drugs and poisons. The Act was amended in 1972 and 1989.⁶ The Pharmacy Division also implements other related legislations, such as the Narcotic Drugs and Psychotropic Substances Act⁷ (formerly called the Dangerous Drugs Act).

The Drug Regulatory Authority The Pharmacy and Poisons Board (PPB)

The Pharmacy and Poisons Board was enacted through the Pharmacy and Poisons Act, to manage the pharmacy profession as well as the manufacture and trade in drugs. The Minister of Health appoints nine individuals to form the Board: Director of Medical Services (Chairperson); Chief Pharmacist (Registrar); four pharmacists from a panel of names submitted by the Pharmaceutical Society of Kenya; two medical practitioners; and the Director of Veterinary Services, or a veterinary surgeon nominated by him. The Board meets once or twice a week to discuss the various areas of responsibilities that they oversee^{8 9}.

⁴ Ministry of Health, Republic of Kenya. Pharmacy and Poisons (Registration of Drugs) Rules 1981. The Kenya Gazette Supplement No. 55, Legal Notice 147, 25 September 1981.

⁵ The Pharmacy and Poisons Act (1983) Chapter 244, Laws of Kenya. Government Printer, Nairobi, Kenya

⁶ Onyango, C. Email communication to R. Shretta, Nov 21, 2001.

⁷ Laws of Kenya. The Narcotic Drugs and Psychotropic Substances Act (1994). Chapter 245. Printed and published by the Government Printer, Nairobi.

⁸ Personal communication with M. Thuo, Feb 22, 2002.

In addition to the registration of drugs, the Pharmacy and Poisons Act also requires registration of: pharmacists; pharmacy premises; drug wholesalers; importers of pharmaceutical products; exporters; manufacturer of drugs and, retailers.

The Drug Registration Committee of the PPB

The Drug Registration Committee is a Technical Evaluation Committee (TEC) formed to assist the Pharmacy and Poisons Board in the drug product evaluation exercise. This Committee is composed of experts including university lecturers, researchers, clinicians, industrialists and community pharmacists. The Committee has two sub-committees to evaluate human drugs and veterinary drugs respectively¹⁰.

New registrations

All drugs for use in the public and the private sector must be registered. Although there may be illegal drugs on the private market that are not registered, the rule still formally applies. All drugs acquired through the public tender system must be registered. This is a requirement that the government respects.

A requirement for registration is that the drug product must already be registered in the country of origin. When submitting an application in Kenya, this registration number will be required.

In order for any drug to be registered in Kenya, the following criteria are considered:

1. Proven quality, safety and efficacy
2. Specific medical need; advantages over already registered products
3. Price
4. Unique characteristic such as life-saving or orphan drug

Although 1,2, 3 and 4 are all cited as requirements, only 1. is applied as a criterion for actual registration as registration applies to all drugs licensed to be sold or used in the country through both public and private sectors.

Application fees

There is a registration fee for all drug registration applications: US \$1000 for a drug that is imported into Kenya; US \$700 for a drug that is partially manufactured in Kenya; and US \$500 for a drug that is fully manufactured in Kenya¹¹. The form “Application for Registration of a Drug”¹² (Annex 2 of this document) needs to be submitted in sextuplicate to the Registrar of the Pharmacy and Poisons Board. New investigational drugs are considered exempt from normal registration requirements in order to facilitate their availability for clinical studies¹³.

⁹ Shretta R. (1999). The Kenya National Drug Policy: the regulatory framework, procurement and public sector distribution of pharmaceuticals.

¹⁰ Shretta R. (1999). The Kenya National Drug Policy: the regulatory framework, procurement and public sector distribution of pharmaceuticals.

¹¹ Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications. Second Edition, 2001. Pharmacy and Poisons Board, June 2001 (*Annex A*)

¹² Application for Registration of a Drug form (14 pages) to be sent to The Registrar, Pharmacy & Poisons Board, P.O. Box 30016, Nairobi, Kenya (*Annex B*)

¹³ Ministry of Health, Republic of Kenya. The Kenya National Drug Policy. July 1994 (*Annex E*).

Who may apply for drug registration?

The application to register a drug should be made by the manufacturer. A foreign manufacturer may be represented in Kenya by a domiciled agent who is empowered to plead the manufacturer's cause before the PPB. An agent for a foreign manufacturer must file a blanket Power of Attorney which authorizes him to speak for his principal in all matters relating to the latter specialties¹⁴.

The document "Registration of Drugs: Guidelines to Submission of Applications"¹⁵ (*see Annex A*) provides specific instructions to assist the applicant in providing the particulars which the Pharmacy and Poisons Board needs, to be able to decide on the application for registration. Since the data and documentation required varies for each drug, the instructions are necessarily general in character.

Information required for registration

Besides information on the applicant and the manufacturer, detailed information is required of the pharmaceutical product. An application dossier must be submitted and must include:

- (i) The pharmaceutical formula of the product;
- (ii) The names and structural formulas of the active ingredient(s);
- (iii) The specifications for all the active and non-active raw materials used in the manufacturing process;
- (iv) The analytical control procedures performed on all non-active materials before use in the manufacturing process;
- (v) The analytical control procedures performed and the frequency with which they are performed during the manufacturing process;
- (vi) The full specifications of final manufactured product;
- (vii) The analytical procedures which are performed on the final manufactured product;
- (viii) The shelf-life of the product;
- (ix) The manufacturing and packaging method;
- (x) The experimental details and results of tests performed to confirm the product's pharmacological effects;
- (xi) The experimental details and results performed to confirm the product's physiological availability; and,
- (xii) The particulars of clinical tests conducted on the efficacy of the drug (e.g. comparative or controlled clinical tests, double blind tests, etc).

In addition, three sealed samples of the smallest commercial pack must be submitted, together with a sufficient amount of the drug in a different pack as well as a working standard (2g) to enable an analytical test to be performed as per applicant's methods of analysis of the final product. The sample should be complete with the label affixed, accompanied by the literature insert and contained in the final commercial pack¹⁶.

¹⁴ Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications. Second Edition 2001. Pharmacy and Poisons Boards, June 2001.

¹⁵ Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications. Second Edition, 2001. Pharmacy and Poisons Board, June 2001.

¹⁶ Pharmacy and Poisons Board, Ministry of Health, Republic of Kenya. Registration of Drugs: Guidelines to Submission of Applications, Second Edition 2001, June, 2001.

The marketing category for the product should also be indicated by the applicant as follows:

“POM”	Prescription Only Medicine
“P”	Pharmacy Only Medicine
“OTC”	“Over the Counter” medicines that are freely available through defined outlets such as shops

Although this information must be submitted by the applicant in its application for registration, it is the Drug Registration Committee of the Pharmacy & Poisons Board that will ultimately decide the appropriate marketing category of the drug product.

When an application is submitted, the supporting documentation must be complete. After initial review of an application, any supplementary information required to complete a review of an application, must be submitted within six months of the date of communication, after which the application lapses. Any submission after this period will be treated as a new application and will be subject to (another) registration fee.

Box 2: Scheduling of Drugs in Kenya¹⁷

All drugs are classified into various categories or schedules according to the level at which the drug can be prescribed and dispensed.

Part I Poisons

These may be dispensed only by a registered pharmacist.

Schedule I – Prescription Only Medicine (POM)

A prescription from a registered medical practitioner, dentist or veterinary surgeon is required. These may only be dispensed by a pharmacist without a prescription in an emergency in small quantities, where a registered practitioner is not available.

Schedule II – Pharmacy only Medicine (P)

Prescription from an authorized prescriber is required.

Part II Poisons

May be dispensed by pharmacists and other authorized persons.

Schedule III – These may be dispensed by a registered pharmacist without a prescription or by a pharmaceutical technologist on prescription from an authorized prescriber.

Schedule IV – Over the Counter Medicines (OTC)

These may be sold in authorized outlets without a prescription.

Research evidence

¹⁷ Shretta, R. (1999). The Kenya National Drug Policy: the regulatory framework, procurement and public sector distribution of pharmaceuticals

Before registering a new drug for which research work has been conducted in another country and its efficacy and quality established in that country, the Pharmacy and Poisons Act requires an investigation on the pharmaceutical, pharmacological and other aspects of the drug to be conducted as well as any clinical trials which are necessary to establish its quality and where applicable the biological availability and its safety and efficacy established under local conditions.¹⁸ While this may be a formal requirement, in actual fact, safety and efficacy studies have not necessarily been conducted under local conditions.

The WHO Certification Scheme

Kenya is officially listed as a participant in the WHO certification scheme for drugs. However, this only represents their intent to participate. In reality, Kenya does not vigorously applying the scheme¹⁹.

Requirements for different drug combination products

A separate application is required for each new product. Products containing the same ingredients but made to different specifications (strength or content of ingredients, dosage form, etc) or by a different manufacturer require separate applications for product registration²⁰.

Requirements for different dosage forms

Different dosage forms of products containing the same ingredient require a new application for registration.

For example, if rectal artesunate (suppository) is to be introduced and if oral artesunate is already registered in Kenya, a new application will be required. The form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted together with information illustrating the bioavailability and bioequivalence of the active ingredient in the different matrices. All other details in the chemical section of the application that would be relevant to the finished dosage form such as standards for excipients would have to be included. A fee of US \$1000 for a drug that is imported into Kenya; US \$700 for a drug that is partially manufactured in Kenya; and US \$500 for a drug that is fully manufactured in Kenya²¹ must be submitted together with the application.

This registration process may be expedited.

Requirements for fixed-dose combinations.

This is treated like a new drug and a new application must be made. It will undergo the same procedure as a new drug.

¹⁸ Shretta-Chag, R. Kenya policy doc.

¹⁹ Wehrli, A. Telephone communication with N.Teoh, March 11, 2002.

²⁰ Pharmacy and Poisons Board, Ministry of Health, Republic of Kenya . Registration of Drugs: Guidelines to Submission of Applications, Second Edition 2001. June 2001.

²¹ Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications. Second Edition, 2001. Pharmacy and Poisons Board, June 2001 (*Annex A*)

For example, if artesunate and amodiaquine are already registered separately and approved for use in Kenya and a fixed-dose combination of both artesunate and amodiaquine (the two ingredients combined in the same tablet or capsule) is planned for use in the country, a new application will be required to register this fixed-dose combination. The form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted together with information illustrating the bioavailability and bioequivalence of the active ingredient in the different matrices. All other details in the chemical section of the application that would be relevant to the finished dosage form such as standards for excipients must be included. A fee of US \$1000 for a drug that is imported into Kenya; US \$700 for a drug that is partially manufactured in Kenya; and US \$500 for a drug that is fully manufactured in Kenya²² must be submitted.

This registration process may be expedited.

Pre-packaged combinations.

A separate registration application is required. The components of the co-packaged product would be considered as a single product. Relevant technical details for each drug must be provided in the application as described above.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Kenya: If one unit each of artesunate and one unit each of amodiaquine are packaged together in a blister pack, a new drug registration application will also be required. The form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted together with information illustrating the bioavailability and bioequivalence of the active ingredient in the different matrices. All other details in the chemical section of the application that would be relevant to the finished dosage form such as standards for excipients must be included. A fee of US \$1000 for a drug that is imported into Kenya; US \$700 for a drug that is partially manufactured in Kenya; and US \$500 for a drug that is fully manufactured in Kenya²³ must be submitted.

This registration process may be expedited.

Non fixed dose combinations (co-administered combinations)

A separate registration is not required. For example, if artesunate and amodiaquine are already registered separately and approved for use in Kenya as individual treatments, there is no need to re-register this combination intended for co-administration.

Pre-packaged fixed-dose combinations of different duration

A separate registration application is required for each dosage of different duration.

²² Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications. Second Edition, 2001. Pharmacy and Poisons Board, June 2001 (*Annex A*)

²³ Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications. Second Edition, 2001. Pharmacy and Poisons Board, June 2001 (*Annex A*)

For example, Coartem® is a fixed-dose combination containing artemeter and lumefantrine. It is marketed as Coartem-4® (4 doses of 4 tablets each, for 2 days) and Coartem-6® (6 doses of 4 tablets each, for 3 days). A new drug registration application will be required and the form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted. All other details in the chemical section of the application that would be relevant to the finished dosage form such as standards for excipients must be included.

This registration process may be expedited.

Renewals and alterations to applications

Once approved, registration is valid for a period of five years after which it must be renewed. The fees for renewal are as follows: US \$500 for a drug that is imported into Kenya; US \$400 for a drug that is partially manufactured in Kenya; and US \$300 for a drug that is fully manufactured in Kenya.

The form “Application for Registration of a Drug” must be re-submitted for renewals. Any alteration to the original application requires an additional fee of US \$200 together with an explanation for the alteration and any evidence to support this change.

Results of drug registration application

On average, it takes 6 months from the time the application is submitted to the time a decision is reached by the Drug Registration Committee²⁴. If registration is granted, the drug is registered for 5 years, after which the manufacturer must reapply for registration. Approval of applications for registration is announced in a weekly government publication called The Kenya Gazette (see Annex 2 for a sample issue of The Kenya Gazette). A “Registration of Drugs Certificate” is also issued to the applicant or manufacturer by the Registrar of the Pharmacy and Poisons Board (see Annex 2).

Newly registered drugs for the Kenyan market are also published in the annual Kenya Medical Directory²⁵.

If the product is considered to be of urgent public health interest (such as antiretroviral drugs), a special hearing can be given for the product by the PPB and its technical committees. However, this is rare. Applications are usually processed on a first come, first serve basis. Submitting a completed application is usually the best way to having the application processed within a reasonable timeframe. Incomplete applications can significantly delay the approval process.

Changing a drug schedule after registration

If and when there is a need to change the scheduling of a drug from one category to another (i.e. from POM to OTC), the Office of the Director of Medical Services would be involved in his capacity as the Chair of the PPB and his position as the highest technical position in the MoH.

²⁴ E-mail communication from Onyango, C. to Shretta-Chag, R on Nov 21, 2001.

²⁵ The Official Kenya Medical Directory, 2001/2 edition. Published by Express Communications Ltd., Nairobi. www.kenyahealthcare.com

The National Malaria Control Program will also play a decisive role in any changes in the scheduling of any antimalarial drug products²⁶. The Malaria Control Unit (MCU) will be represented at PPB meetings during which regulation and registration of antimalarials are considered to ensure adequate technical advice in relation to appropriate formulations, packaging and dosing in concert with national policy, recommendations and feasibility. In addition, both the PPB and MCU have the responsibility to ensure adequate legislation of drug use to allow access to first-line therapies through informal drug sellers²⁷ and appropriate regulation would thus be their joint responsibility.

The head of the NMCP is required to justify a change in the scheduling of an antimalarial from a Prescription Only Medicine (POM) to an over the counter (OTC) medicine. This justification must be made to the Director of Medical Services (DMS) and the Chief Pharmacist. Deregulation is normally enacted through a legal notice by way of a letter written by the Registrar of the PPB (the Chief Pharmacist) on behalf of the PPB. Attached to the letter is usually the draft of a Gazette notice²⁸. The letter is written to the Attorney General's office (there is a department that deals with the publication of Gazetted notices). The Attorney General usually accepts the technical advice of the PPB regarding its decision to deregulate the product and publishes the draft notice.

Box 3: The Kenya National Drug Policy.

Drug registration is also discussed in the Kenya National Drug Policy²⁹. The Policy is legally supported by the Pharmacy and Poisons Act and regulated by the Pharmacy and Poisons Board (*See Annex E on Kenya National Drug Policy, July 1994*). The goal of the National Drug Policy is to ensure that pharmaceutical services in the country meet the requirements of all Kenyans for the prevention, diagnosis and treatment of diseases using efficacious, high quality, safe and cost-effective pharmaceutical products. The Policy is to guide legislative reforms, staff development, and management improvements for pharmaceutical services. By implementing the policy, it is intended to make a substantial contribution to the provision of quality health care in the public, private, mission and NGO sectors³⁰.

Good Manufacturing Practice (GMP)

All manufacturers are required to adhere to internationally accepted standards for current Good Manufacturing Practices (GMP)³¹. The Board reserves the right to verify the Good Manufacturing Practices compliance of the manufacturer at the applicant's expense³². Kenya has its own GMP guideline, which is based on the WHO GMP guidelines. The Pharmaceutical Manufacturers working group has also developed its own draft guidelines of GMP that has been

²⁶ Personal communication with M. Thuo, Feb 22, 2002

²⁷ National Malaria Control Program, Ministry of Health, Republic of Kenya. National Malaria Strategy: 2001-2010. Draft IV: January 2001.

²⁸ The Gazette a legal federal publication like a federal register

²⁹ The Kenya National Drug Policy (1994), Republic of Kenya, Ministry of Health

³⁰ The Kenya National Drug Policy (1994), Republic of Kenya, Ministry of Health.

³¹ Ministry of Health, Republic of Kenya. The Kenya National Drug Policy. July 1994.

³² Pharmacy and Poisons Board, Ministry of Health, Republic of Kenya. Registration of Drugs. Guidelines to Submission of Applications, Second Edition 2001. June 2001.

accepted by the pharmaceutical industry, but has not been incorporated into the Pharmacy and Poisons Act.

Products registered under the PPB in Kenya must be manufactured under GMP. The pharmaceutical inspectorate uses GMP as a basis for assessing manufacturing standards. The location, architectural design and construction of a pharmaceutical factory will be subject to specified minimum requirements. Such requirements should be consistent with standards that meet international validation criteria acceptable to the Pharmacy and Poisons Board. The Pharmacy and Poisons Board has established criteria for personnel to man quality assurance and production sections of a pharmaceutical manufacturing facility. Adherence to GMP and quality assurance policies is enforced by the QA-GMP team in the Pharmacy Inspectorate of Department of Pharmacy, according to international guidelines³³.

Although these are the formal requirements, none of the pharmaceutical manufacturers in Kenya meet the GMP standards set by the PPB. Furthermore, most of the generics imported into the country and are registered have not been manufactured under GMP.

Inclusion of Combination Therapies in the Standard Treatment Guidelines (STG) and the Essential Drugs List (EDL)

Since the early 1980s, Standard Treatment Guidelines (STGs) for Kenya's public sector health centers and dispensaries have been developed by the country's Essential Drugs Program. They have been published as wall charts and in the Handbook for Rural Health Workers³⁴. For the provincial, district, and sub-district hospitals, the Ministry of Health published in 1994, "Clinical Guidelines: For Diagnosis and Treatment of Common Hospital Conditions"³⁵. These guidelines are for use by clinicians who have primary responsibility for diagnosis and treatment of inpatients and outpatients. This includes medical officers, clinical officers, and midwives caring for maternity patients. It is also intended for medical and clinical officers in training, pharmacists and nurses for reference purposes, and for other health professionals working in the hospital setting. Also included in the Clinical Guidelines is the Kenya Essential Drug List (KEDL)(Annex C of the Clinical Guidelines) (see Annex 2 of this report).

The two sets of treatment guidelines form the basis for revisions of the National Essential Drugs List. Although there was general consensus that both documents (STGs and the EDL) should be updated every two years, the first revision of both the STGs and the EDL were published in 2000, initiated by the Kenya National Drug Implementation Program (KNDPIP), which has now been replaced with The National Pharmacy and Therapeutics Committee (NPTC)³⁶. The NPTC is now responsible for initiating and finalizing EDL and STGs revisions every 2 years. This Committee is chaired by the Director of Medical Services while the Chief Pharmacist serves as

³³ Ministry of Health, Republic of Kenya. The Kenya National Drug Policy. July, 1994.

³⁴ Handbook for Rural Health Workers: Common Diseases and Essential Drugs Management. Ministry of Health, Government of Kenya, March 1990, Nairobi, Kenya

³⁵ Clinical Guidelines: For Diagnosis and Treatment of Common Hospital Conditions in Kenya, Ministry of Health, Government of Kenya, November 1994, Nairobi, Kenya

³⁶ Onyango, C. Process for changing STGs and EDL. Internal MSH communication, Feb 2002.

the secretary. A committee of 18 members is appointed by them, with representation from the following groups:

1. Ministry of Health headquarters and KEMSA
2. Provincial Medical Officers of Health
3. Medical Practitioners and Pharmacists representing Provincial Hospital Pharmacy and Therapeutics Committee
4. Medical Practitioners and Pharmacists representing District Pharmacy and Therapeutics Committee
5. Clinical and Pharmacy Departments of the public universities, including a clinical pharmacologist and clinical pharmacist
6. Kenyatta National Hospital Pharmacy and Therapeutic Committee
7. Mission and private health institutions

Under the NPTC mechanism for changing the EDL and STGs, the main impetus for introducing a new drug must come from the head of the vertical programs such as the National Malaria Control Program. At times, the Office of the Director of Medical Services or other clinical experts may also propose changes. Each clinical vertical program, such as the NMCP have their own guidelines and treatment protocols which they would first have to change before approaching the DMS to initiate a process for changing the EDL and STGs. For example, the NMCP would in principle have to change its own malaria treatment guidelines first before advocating for or lobbying the Office of the DMS for the introduction of an anti-malarial combination therapy to the EDL and STGs³⁷.

To change the clinical program's clinical guidelines /protocols, the program director will have to produce sufficient published scientific data or clinical evidence showing the efficacy, effectiveness and cost-effectiveness of the proposed therapy. This data is supposed to be presented in a consultative forum called by the clinical program director to which the DMS, Chief Pharmacists and other respected members of the medical, pharmaceutical and research community are invited. These consultative forums are supposed to take place every two years. Once the proposed changes to the clinical protocols are accepted in this consultative forum, the revision(s) is/are formally proposed to the NPTC, which then makes a recommendation to the Ministry of Health³⁸.

A form is supplied with each essential drugs list. Any individual who wishes to suggest additions, deletions or other changes to the list, should send the form to the office of the Chief Pharmacist at the Ministry of Health. The form also requests comparative cost information to be provided by the Kenya Medical Supplies Agency (KEMSA)³⁹.

Generally, it is preferred that inclusion in the WHO EDL be a pre-requisite for inclusion on the Kenya EDL. However, a variety of circumstances such as local needs (e.g., drug resistance), financial and other constraints may need to be taken into consideration. Each drug product is thus considered on an individual basis.

³⁷ Onyango, C. Process for changing STGs and EDL. Internal MSH communication, Feb 2002.

³⁸ Onyango, C. Process for changing STGs and EDL. Internal MSH communication, Feb 2002.

³⁹ Shretta-Chag, R. Kenya policy doc

Secondary Schedule Drugs

Some drugs may be needed in special circumstances but do not meet the Essential Drugs criteria. These secondary schedule drugs (previously known as ‘non-schedule drugs’) are selected on an individual basis. The criteria for selection are: they should have a therapeutic advantage over those in the Essential Drugs List; they may be availed to those institutions with specialized medical personnel; they are for special care and should be monitored by experts; choice between drugs should be made on the basis of careful evaluation, price, efficacy, safety and quality. Some aspects of the essential drugs selection criteria may apply⁴⁰.

Registered combinations

Artemisinin and several of its derivatives are already registered in the country, although they are not on the Kenya Essential Drugs List (KEDL) nor are they included in the Standard Treatment Guidelines (STGs). To retard the development of parasite drug resistance, these derivatives are to be used only on a limited basis in a responsible way.

Table 1 illustrates the list of registered antimalarials and their corresponding category:

Background on the Pharmaceutical aspects of the Ministry of Health

The Ministry of Health in Kenya is headed by the Minister for Health, who is politically appointed. He is assisted by the Permanent Secretary and the Director of Medical Services (DMS). They are in charge of the administrative and technical roles respectively. The Ministry headquarters set policies, coordinates the activities of non-governmental organizations (NGOs) and manages, monitors and evaluates policy implementation. The government of Kenya operates 1,844 governmental health facilities, which is approximately 58% of all health facilities in the country⁴¹.

Director of Medical Services

Representing the technical aspects of the Ministry of Health, the Director of Medical Services (DMS) plays an important role in many aspects that concern pharmaceutical services. Besides chairing the Pharmacy & Poisons Board (PPB), he or she also sits on the majority of other health boards and councils in Kenya, including the National Therapeutics Committee.

The Pharmacy Division of the Ministry of Health

The Pharmacy Division falls under the Department of Curative and Rehabilitative Services (C&RS) in the MoH. The Department of Curative and Rehabilitative Services is concerned with the management, treatment and drugs associated with clinical practice in all medical institutions of Kenya covering clinical, nursing, dental, laboratory, occupational therapy and physiotherapy and pharmacy. The Pharmacy Division is charged with the responsibility of ensuring effective and efficient management of pharmaceutical services in the country. The Division provides advice on policy, procurement and distribution of drugs. The Division is responsible for the formulation of National Drug Policies. Other functions include ensuring that local manufacturing complies with stipulated manufacturing standards as well as provision of professional advisory services to KEMSA relating to procurement. In addition, the Division ensures that all drugs

⁴⁰ Shretta-Chag, R. Kenya Policy doc (*need exact citing*).

⁴¹ Snow, R., Mwenesi, H., and Rapuoda, B. Malaria Situation Analysis for Kenya. July 1998.

entering the country are registered and meet the quality and safety standards stipulated, that there is proper utilization, management and storage and supply at the health facility level.

The Chief Pharmacist is head of the Pharmacy Division. He or she is directly answerable to the Director of Medical Services. The Chief Pharmacist also serves as the Registrar of the Pharmacy & Poisons Board, where new drug registrations are submitted.

The Kenya Malaria Control Unit (MCU) and the National Malaria Control Program (NMCP)

The Malaria Control Unit (MCU) serves as the operational arm of the National Malaria Control Program (NMCP), falling under the Department of Preventive and Promotive Services (P&PS). It was formed in 1994, after the Kenyan National Plan for Malaria Control was officially released in October, 1992. The NMCP has developed the National Malaria Strategy to Roll Back Malaria (RBM) in Kenya for 2001-2010. The goal of the National Malaria Strategy is to reduce morbidity and mortality caused by malaria by 30% among Kenya's population by the year 2006 and maintained through 2010.⁴² A Working Group on Anti-malarial Drug Policy within the NMCP has been established that is to meet at least twice annually. Its purpose is to advise on implication of drug sensitivity data and on formulation and implementation of policy.

Contacts

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Nairobi, Kenya

⁴² National Malaria Control Programme, Ministry of Health, Republic of Kenya. National Malaria Strategy: 2001-2010. Draft IV: January 2001.

Procurement in the Public Sector

The Kenya National Drug Policy states that procurement for the public sector shall take place according to the following key elements:

1. Drugs will be procured by generic name (International Nomenclature (INN)) name.
2. The product/s must be registered in Kenya
3. Procurement priority will be given to drugs on the Kenya Essential Drugs List (KEDL) (and the Kenya Veterinary Essential Drugs List (KVDEL)). Drugs not on the Essential Drugs List will be procured only if they fit into one of the following categories:
 - a. drugs for diseases not catered for by the KEDL or KVDEL
 - b. drugs for use in institutions with specialized medical personnel
4. Pharmaceutical requirements will be calculated annually and updated periodically throughout the year, based on demand. An annual procurement plan and schedule will be made according to actual resources available and realistic delivery times.
5. Drugs will be purchased by competitive tender. Tenders will be open only to suppliers who have been pre-qualified by the Ministry of Health. Suppliers will be pre-qualified (approved in advance) by a technical evaluation committee from applications received through a regular open pre-qualification process.
6. The National Drugs Quality Control Laboratory (NQCL) will regularly test the quality of products procured by the Ministry. In addition, other data generated by the NQCL will be used in the supplier pre-qualification process.
7. A formal supplier monitoring system will be established with objective standards for drug quality and service performance. Suppliers whose product quality or service fall below standards will be deleted from the list of approved suppliers.
8. Supply terms will be specific to pharmaceutical products, particularly with respect to specifications, shelf life, labeling, packaging and related issues⁴³.

Drug Procurement Committee (DPC)

The Drug Procurement Committee was established in 1988. It is responsible for making decisions on the priorities of medical supplies to be purchased for Government health institutions. It adjudicates on and awards tenders to suppliers. KEMSA is the technical secretariat to the committee. The KEMSA assists the Drug Procurement Committee in compiling medical supplies requirements and other financial estimates required. The KEMSA receives samples and presents them to the technical evaluation committee for examination and recommendation to the Committee. The Committee is composed of the following members:

- Deputy Secretary (KEMSA)
- Chief Pharmacist
- Chief Nursing Officer
- Provincial Medical Officers (8)

⁴³ The Kenya National Drug Policy. Ministry of Health, Government of Kenya (with support from WHO Action Programme on Essential Drugs and Vaccines), July 1994.

Although the DPC has been formed, it has not been given the legal framework in which to operate. Plans are underway to establish it under the Exchequer Act to give it the legal basis for its operations.

Official responsibility for all Ministry of Health funded procurement rests with the Tender Board, which is represented by the Chief Supply Officer, who is based in the Department of Finance and Administration in the Ministry of Health seconded from the Ministry of Finance⁴⁴ (*MSH J. Bates report, p.10*) and the Chief Pharmacist coordinated with KEMSA to prepare and advertise the tender documents and to carry out the technical evaluation and adjudication of the tenders. The Ministry of Finance allocates funds for drug supplies at the beginning of each financial year. Decisions on allocations are determined by the treasury and the Ministry of Health has little influence in this area.

The former Essential Drugs Program (EDP) has been incorporated into KEMSA.

The Kenya Medical Supplies Agency (KEMSA)

Until recently, the Medical Supplies Coordinating Unit (MSCU) was the agency within the Ministry of Health responsible for storage and distribution of drug supplies. Within the Ministry system, most drugs used to be distributed in kits. However, the distribution of pharmaceuticals in the public sector is currently in transition, moving away from the kit system as the exclusive method, to a system where local purchase orders can be made independent of KEMSA⁴⁵. In February 2000, the Kenya Medical Supplies Agency was legally established as a state corporation⁴⁶.

The distribution network consisted of 4 levels. At the first level, KEMSA operates a central storage facility in Nairobi, where most supplies enter the system. The second level consisted of 5 regional sub-depots. The third level consisted of 67 district stores. The fourth level consisted of 91 hospitals, 484 health centers and 1, 322 dispensaries. In general, the flow of supplies was from MSCU, through the sub-depots, through the district stores, and on to the clinical facilities⁴⁷.

The Agency is run by a Board, which meets every three months. The Chief Executive of the Agency is the secretary to the Board and who, under the direction of the Board, manages the operations of the Agency. Under the general direction of the Minister (for the time being responsible for Health), the Agency is established for the following purposes: (a) to procure drugs and medical supplies, offer for sale and supply the same to public health institutions on such terms as the Board may from time to time prescribe; (b) to establish warehouse facilities in Nairobi or any other towns of Kenya for the purposes of storage, packaging or sale of drugs and medical supplies to health institutions; (c) to carry out or cause to be carried out technical and or laboratory analysis of drugs and medical supplies to determine their suitability for procurement, sale, use, storage or disposal by the Agency; (d) to advise the consumers and health providers on

⁴⁴ Bates, J. APHIA Financing and Sustainability Project. Options for promoting financial sustainability of drugs, vaccines and family planning supplies. Management Sciences for Health, Arlington, VA, March 1998.

⁴⁵ Thuo, M. and Onyango, C. (MSH-Kenya staff). Personal (phone) communication, January 22, 2002.

⁴⁶ Kenya Gazette Supplement No. 8, 11th February 2000. Legislative Supplement No. 5, Legal Notice No. 17, The State Corporations Act (Cap 446).

⁴⁷ Bates, J. APHIA Financing and Sustainability Project. Options for promoting financial sustainability of drugs, vaccines and family planning supplies. Management Sciences for Health, Arlington, VA, March 1998.

the rational and cost effective use of drugs and medical supplies in consultation with other agencies; (e) to use guidelines on the procurement, storage, use and disposal of pharmaceutical products within public health institutions in consultation with other agencies; (f) to sub-contract any of the above functions to competent agents or institutions as may be determined by the Board, without prejudice to the objects for which the Agency is established; (g) to make available its facilities for use for educational purposes on such terms and conditions as the Board may deem necessary.

Public sector drug procurement tends to do large volume procurement fewer times per year (usually once) because of the way in which funding is made available. Public sector procurement also tends to be more of an open tender system.

Quantification

Estimation of requirements for each pharmaceutical product is decided upon by the Pharmacy Division. The Chief Pharmacist plays a key, pivotal role with input from the Director of Medical Services. A committee organized by the Chief Pharmacist would meet at the Ministry of Health, which includes the relevant key departments and programs. At present, estimation of requirements are based on a combination of available methods, including historical use (consumption based method) and the prevalence of specific disease states and health problems (epidemiology based method).

Provincial and District Medical Offices are to be responsible for defining requirements for drugs and related commodities for malaria control in their areas. The MCU is to support them in this responsibility by working with the Essential Drugs Program (EDP), and the KEMSA. This partnership will advise and lobby for the procurement, packaging and distribution of first and second-line therapeutics and related supplies, and supplies for the management of complicated disease in adequate quality and quantities for all levels of the formal health sector⁴⁸. The MoH's Disease Outbreak Management Unit (DOMU) with technical support from MCU, is responsible for ensuring that KEMSA procure and retain buffer stocks of anti-malarial drugs for epidemics. DOMU meets regularly with KEMSA to receive updates on the inventory of anti-malarials⁴⁹. Provinces and Districts are to be responsible for monitoring anti-malarial drug supplies and distribution to the formal sector. The MCU will support the monitoring of national supplies, identifying and dealing with obstacles to distribution and, until KEMSA is operational, negotiating with MoH, Government of Kenya and development partners to fill national resource gaps.⁵⁰

There was an attempt to do a morbidity-based quantification for the National Malaria Program around 1999 or 2000. Quantification for the former MSCU's provision of malaria drugs was historically based on consumption information from the provincial medical officers, however this system of getting information has resulted in stockouts, overstocking and overall erratic supply of malaria drugs.

⁴⁸ National Malaria Control Program, Ministry of Health, Republic of Kenya. National Malaria Strategy: 2001-2010. Draft IV: January 2001.

⁴⁹ Ogaja, E. Telephone communication with N. Teoh, March 1, 2002.

⁵⁰ National Malaria Control Program, Ministry of Health, Republic of Kenya. National Malaria Strategy: 2001-2010. Draft IV: January 2001.

Supplier Selection /Tender Management / Contract Terms

The Ministry of Health relies on procurement agents to manage various tenders. The MOH currently uses Crown Agents to procure 80% of its drugs. This is done on a quarterly basis and is issued for annual requirements. Some of the procurement is done through direct tender through the drug procurement committee, called the Departmental Tender Board.

Crown Agents

Since 1995, Crown Agents, with headquarters in the United Kingdom, has been undertaking the procurement, inspection and shipping of pharmaceuticals for the MoH. Procurement is carried out through international competitive bidding. Crown Agents procure mainly from manufacturers. Drugs are procured in kits. Hence, bids are submitted for complete kits. Bidders may not necessarily be manufacturers of all items. The criteria for selection are quality and price.

Quality Assurance for Drug Procurement

WHO Certification Scheme on the Quality of Pharmaceuticals.

The WHO Certification Scheme on the Quality of Pharmaceutical Products moving in international commerce forms the basis for a National Certification Scheme for the import and export of pharmaceuticals. The Preferential Trade Area (PTA) Certification Scheme is incorporated into this national scheme.

Kenya is supposed to be implementing the WHO certification scheme. The Chief Pharmacist (and Registrar of PPB) issues these certificates from time to time. The drug registration committee requests for this certification as part the of the application documents for drug registration. It is not clear whether certificate is required for importing or exporting of drugs.

National Quality Control Laboratory (NQCL)

The NQCL verifies the quality of pharmaceutical products imported, exported or produced in Kenya. The NQCL was formally implemented in 1994. The function of the NQCL is to perform assays on products submitted for drug registration. During the drug registration process, should the Drug Registration Committee (technical evaluation committee) of the PPB deem it necessary to perform validation tests, additional drug product samples may be requested from the applicant or manufacturer. Validation tests on the claims of the applicant are performed. Bioequivalence studies using dissolution rates are used according to the pharmacopoeia standards stated in the application. (At present, products not included in a pharmacopoeia are not assayed). The NQCL then sends the test results to the Office of the Registrar at the PPB.

Post Marketing Surveillance

The emphasis of post-marketing surveillance is for drug groups that are of public health interest and include anti-malarials. In the past, locally manufactured generic antimalarials, such as SP have been tested. Some of these SP drugs have had problems of dissolution and content. Local manufacturers were notified accordingly to reformulate and to improve on the quality of their production⁵¹.

⁵¹ Ogaja, E. Telephone communication with N. Teoh, March 1, 2002.

Specific to anti-malarials, the MCU has a Memo of Understanding, contracting the NQCL to lot-test and assure all Government of Kenya procured anti-malarials. The NQCL will also maintain a product testing service for the MoH of all locally manufactured and imported anti-malarial products available in the informal sector^{52 53}.

Crown Agents Quality Assurance and Inspection Services (QAIS) inspectors all over the world carry out frequent inspection visits to manufacturers' premises to evaluate the manufacturing process, labeling and packaging, as well as internal quality assurance procedures. Drugs are randomly tested biannually for quality assurance at the Medicines Testing Laboratory (MT) in Edinburgh, Scotland as well as at NQCL.

Crown Agents monitors the marketplace, user and supplier. In Kenya, they employ a consultant qualified chartered chemist who inspects the drugs before they leave the factory premises. They have a certification process for the manufacturers who are eligible to receive tender applications. Tenders are launched annually; however, supply may take place two to three times a year, depending on a variety of factors.

Importation of drugs in Kenya

The PPB is authorized by law to issue a permit for the importation of products. This import permit must be obtained prior to confirmation of an order for the importation of any product. Permits are to be used only once at the port of clearance. A permit fee to be determined by the Board is charged. The permit should bear the full name of the superintendent pharmacist together with his/her registration number, date and stamp of the company as well as the name and address of the exporter and the importer, description of the product, quantity, registration number, country of manufacture/origin and total value. To apply as an authorized importer a form must be completed. For each importation (which can include several products), a separate form must be completed and submitted to PB to request for a permit to import drugs.

Procurement in the private sector

Procurement in the private sector is done on an individual basis. There are several local and multinational manufacturers in Kenya. In addition, there are importers and wholesalers in Kenya. Importers import medicinal products from foreign countries and either act as wholesalers or they may supply other wholesalers. Often the importers hold agencies and distribution rights for multinational manufacturing companies. Wholesalers may procure locally from manufacturers and importers and supply to the private distribution chain, which may include hospitals, pharmacies, drugstores, shops and supermarkets.

In the private sector procurement tends to be in much smaller quantities, and the tendency is more to negotiate prices with pre-qualified suppliers (rather than doing open tenders).

Mission for Essential Drug Supplies (MEDS)

MEDS is an autonomous organization initiated by the Catholic Secretariat and the Christian Health Association to supply good quality essential drugs at a reasonable cost to over 500

⁵² Ogaja, E. Telephone communication with N. Teoh, March 1, 2002.

⁵³ National Malaria Control Program, Ministry of Health, Republic of Kenya. National Malaria Strategy: 2001-2010. Draft IV: January 2001.

church-managed health units in Kenya, which constituted roughly 36% of the country's rural health services. It also sells to several local and international NGO's for local operations. It has the approval from the MoH and buys drugs in bulk from local and foreign manufacturers through competitive bidding.

SUMMARY:

Drug registration in Kenya is covered by the 1981 Pharmacy and Poisons act which resulted in the formation of the Pharmacy and Poisons Board. Any drug to be sold in Kenya must be registered with this board. The board's decisions are based evaluations of the drug to be registered, which are conducted the Technical Evaluation Committee – a body of experts drawn from the academic, private and public health arena. In evaluating a drug product for registration, the key criterion considered is the “proven quality, safety and efficacy of the drug.

For a drug to be registered for use in Kenya, it must be registered in its country of origin. An “Application for Registration of a Drug” form is available from the board and must be completed in sextuplicate. The completed form is then submitted to the Registrar of the Board, together with:

- The registration number of the drug in its country of origin (if applicable)
- A predetermined application fee (based on a sliding scale depending on whether the drug is imported, partially manufactured or fully manufactured in Kenya)
- Detailed information relating pharmaceutical properties the active ingredient; the active and non-active raw materials; and the manufacturing process.
- Three sealed samples of the smallest commercial pack; plus enough of the drug to constitute a working standard (2g) for use in analytical testing.
- The proposed marketing category for the product.

After the submission of the initial application, a six-month window is provided for the submission of any required supplementary information after which the application lapses. New applications are required for each new product; products made to different specifications from that already approved; the introduction of a different dosage form of the product; fixed dose combinations (including those of different durations); and prepackaged combinations. In the latter three circumstances, the registration process may be expedited. Non-fixed dose combinations do not require a separate application process.

A decision on whether or not to approve a registration application takes, on average, six months. The registration is valid for five years after which a new application is required. To change the schedule of a drug after registration, an application is submitted to the Director of Medical Services (DMS) in his capacity as the chair of the PPB. To de-schedule an antimalarial, the head of the NMCP is required to submit a justification to the DMS and Registrar of the PPB (the Chief Pharmacist.) If approved the Registrar sends a legal notice on behalf of the PPB to the Attorney General's Office for Publication in the Gazette.

The Drug Procurement Committee is responsible for making procurement decisions on public sector purchases of medical supplies. It adjudicates on and awards tenders to suppliers.

Table 1: Antimalarials in Kenya

	Drug /Dosage Form	Generics Register		Speciality Register ⁵⁴	
		Registered	Class	Registered	Class
1	Chloroquine tab	Y	OTC		
	Avloclor® tab			Y (1996)	POM
	Fastaguine® tab			Y (1998)	OTC
	Nivaquine® tab			Y (1999)	OTC
	Chloroquine syr	Y	OTC		
	Babyquin® syr, Plasmoquin® syr			Y	OTC
	Chloroquine inj	Y	POM		
	Chlorointa® inj		POM	Y	POM
	Letaquine® syr			Y	OTC
2	Amodiaquine tab (Letap Pharm, Accra & Mercury Labs, India)	Y(2000)	OTC		
	Amodiaquine tab (Umedica Labs, Mumbai India)	Y (1997)	OTC		
	Amodiaquine syr	Y (1998)	OTC		
	Malarid® susp			Y (1998)	OTC
	Malarid® tab			Y (1998)	OTC
	Amoquin® susp			Y (2000)	OTC
	Amoquin® tab			Y (1998)	OTC
	Amodin® susp			Y (1999)	POM
	Kamoc® syr			Y (1998)	POM
	Kamoc® tab			Y (1998)	POM
3	SP tab (London United Exports Ltd, UK)	Y (1997)	POM		
	Malacol®, Maladoxine®, Combimal® tab			Y (1998,99)	POM
	Maladox®, Malafan®, Malareich®, Malostat®, Pyradox®, Pyramin® tab			Y (98, 96, 98,97,99,98)	OTC
	Fansidar® tab			Y	POM
	Fansidar® inj			Y	POM

⁵⁴ Branded

	Drug /Dosage Form	Generics Register		Speciality Register ⁵⁵	
		Registered	Class	Registered	Class
4	Quinine tab	N	-		
	Quinine inj	Y	POM		
	Quinimax® (quinine w/ cinchonine) tab			Y	POM
	Quinimax® inj			Y	POM
5	Artemisinin tab	N	-		
6	Artemether tab	N	-		
	Artenam® tab			Y	POM
	Artenam® inj, pedi inj			Y	POM
7	Artesunate tab	N	-		
	Artesunate® tab			Y	POM
	Artesunate inj	N	-		
	Artesunate® inj			Y	POM
	Artesunate syr	N	-		
	Artesunate supp	N	-		
8	Dihydroartemisinin	N	-		
	Cotexin®			Y	POM
9	Coartem® (not specified as -4 or -6)		POM	Y	POM
10	Tetracycline caps	Y	POM		
11	Doxycycline caps	Y	POM		
12	Azithromycin tab, cap, syr (Azee®)			Y	POM
13	Proguanil tab (Paludrine®)			Y(1996)	OTC

⁵⁵ Branded

Annexes

- a. Registration of Drugs: Guidelines to Submission of Applications. Second Edition 2001. Pharmacy and Poisons Board, Ministry of Health, Republic of Kenya. (Also include a copy of the form “Application for Registration of a Drug”).
- b. Application for Registration of a Drug form, Pharmacy & Poisons Board, Ministry of Health, Republic of Kenya
- c. The Kenya Gazette (*sample issue*)
- d. Registration of Drugs Certificate form issued by the Registrar, Pharmacy & Poisons Board
- e. Kenya National Drug Policy. Ministry of Health, Republic of Kenya, July 1994.
- f. Kenya Essential Drugs List (June, 2000). In: Clinical Guidelines: For Diagnosis and Treatment of Common Hospital Conditions in Kenya, Annex C, Ministry of Health, Government of Kenya, June 2000, Nairobi, Kenya.
- g. Contacts and Resources on Kenya

Chapter Two Tanzania

Acronyms

ABC	Method by which drugs are divided according to their annual usage into Class A, B and C items
AQ	amodiaquine
ATC	Anatomical Therapeutic Chemical classification system
CMS	Central Medical Stores
CT	Combination Therapy
DQCL	Drug Quality Control Laboratory
EDL	Essential Drugs List
GMP	Good Manufacturing Practices
IM	Intramuscular
IV	Intravenous
MSD	Medical Stores Department
MSH	Management Sciences for Health
MTB	Medical Tender Board
NEDLIST	National Essential Drugs List
NMCP	National Malaria Control Program
RBM	Roll Back Malaria
SABS	South African Bureau of Standards
SEAM	Strategies for Enhancing Access to Medicines
SP	Sulfadoxine /pyrimethamine
STGs	Standard treatment guidelines
VEN	Vital, Essential, Necessary
WHO	World Health Organization

Introduction

In Tanzania, malaria is the primary cause of morbidity and mortality⁵⁶. Increasing rates of treatment failure due to chloroquine led to a recent change in the recommended first line treatment for malaria to sulphadoxine-pyrimethamine (SP), with amodiaquine as the recommended second line drug. Resistance to SP has already developed in some areas in the country and Tanzania will soon be faced with the challenge of replacement options. Amongst the options being considered are various combination therapies (CT). A trial to evaluate the effectiveness of CT (the Interdisciplinary Monitoring Project for Antimalarial Combination Therapy in Tanzania) using existing public health delivery channels is already underway in four districts in Tanzania.

The Government of Tanzania provides about 60% of all health services, while the private sector provides approximately 40% of the health service delivery (35% non-profit, 5% for-profit organizations).⁵⁷ Nonetheless, studies have shown that about 70% of the population access treatment for malaria and fevers in the private sector.

⁵⁶ Ministry of Health, United Republic of Tanzania. National Guidelines for Malaria: Diagnosis and Treatment. Malaria Control Series 1, 2000.

⁵⁷ Ministry of Health, Tanzania. Master Plan for the Pharmaceutical Sector 1992-2000. September, 1991.

Legal Processes and requirements

Drug Registration

Drug registration with the Pharmacy Board of the Ministry of Health is a pre-requisite for importation and use of any drug in Tanzania in both the public and private sectors.

The Pharmacy and Poisons Act^{58 59} states that:

“Except as otherwise provided in the Pharmaceuticals and Poisons Regulations 1990, no person shall manufacture, sell, import or export any pharmaceutical product unless:

- (a) the pharmaceutical product is registered, and*
- (b) the person holds the appropriate license required and issued by the Board”*

In July 1999, the Board decreed by Gazette that all medicines be notified to the Board and then registered⁶⁰.

The Pharmacy Board’s document entitled “Guidelines for Application for Registration of Pharmaceutical Products in Tanzania”⁶¹ outlines the requirements for registration and includes the necessary registration application forms. This was first published in 1995 and the current (second) edition was issued in 1999.

Pharmaceuticals are currently regulated through the Pharmaceuticals and Poisons Act (No. 9 of 1978). The regulatory body tasked with all matters relating to pharmacy practice and medicine is the Pharmacy Board, which falls under the Ministry of Health (MoH). The National Drug Policy, adopted in 1991, provides broad guidelines to ensure access to appropriate, safe, effective and affordable medicine.

⁵⁸ United Republic of Tanzania. The Pharmaceutical and Poisons Act, 1978 (No.9 of 1978). Regulations. (See Part II. Registration of Pharmaceutical Products).

⁵⁹ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition.

⁶⁰ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁶¹ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania, November, 1999. Second edition.

Box 1: Pharmaceutical & Poisons Act (1978)

The Pharmaceutical & Poisons Act (enacted in 1978) is being reviewed, resulting in the proposal for two separate legislations⁶². The Pharmacy Act will mainly cover professional norms and standards, educational standards, registration of pharmacists, technicians and assistants and generally monitor good pharmacy practice. The Medicines and Poisons Act will deal with the product, establishing a medicine regulatory authority. A Pharmacy Board will oversee this Act⁶³. It is expected they will be tabled before parliament in year 2002.⁶⁴

The drug regulatory authority

The Pharmacy Board

The first Pharmacy Board was established in 1937 and the first drug registration guidelines were produced in 1993⁶⁵. The Pharmacy Board is comprised of 12 members: the Chief Medical Officer (Chairperson); Attorney General; Chief Pharmacist; Registrar (Secretary); Chief Government Chemist; Chief Veterinary Officer; Chief Agriculture Officer (all ex officio); three pharmacists appointed by the Minister of Health and one medical officer appointed by the Minister of Health. The Board has 39 staff members of which 33 of them are technical staff and the rest are support staff⁶⁶. The Chief Pharmacist is responsible for policy decisions. The Registrar is in charge of all matters pertaining to the registration of drugs and premises.

The Objective of the Pharmacy Board is “to safeguard the public health by ensuring only drugs which are safe, effective and of good quality circulate in the market”⁶⁷.

New Registrations

Applications for registration of all new drugs are made on the prescribed Form PBF 27 “Application for Registration of a Drug” (Annex 1). One copy is required to be sent to the Registrar of the Pharmacy Board.

In addition, one copy each of “Data/Particulars of Product and Supporting Documents (Annexes A-E enclosed in Annex 2 of this document)” are required.

These include:

- Annex A Product particulars
- Annex B Pharmaceutical data on dosage form

⁶² Pharmacy Board, Ministry of Health, Tanzania. Annual Report 2000, page 5. (Draft copy obtained from N. Heltzer)

⁶³ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁶⁴ Personal communication via e-mail with Malcolm Clark in Tanzania, Feb 6, 2002 .

⁶⁵ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁶⁶ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁶⁷ Pharmacy Board, Ministry of Health, Tanzania. Annual Report 2000

Annex C	Chemistry and pharmacy of active ingredient(s)
Annex D	Experimental and biological studies (Pre-clinical studies)
Annex E	Clinical (Human) data

Annexes A and B are required for all drug products, while C, D and E are required for certain products only. Unless certain combination anti-malarial therapy products are already registered in Tanzania, it is very likely that all of C, D and E will be required. For example, a combination of a new drug substances and well-established ingredients (an artemisinin derivative plus a well-established anti-malarial drug) will require information under annexes C, D and E (see this report's Annex 2 for further details on the necessary supporting documents required, for specific drug products).

Under A, the applicant will be required to state the proposed therapeutic class of the product. The therapeutic class proposed by the applicant, however, may be subject to change by the Board, depending on data submitted on indications, use and safety. Anti-malarial products are classified as P01B (antiparasitic products / antiprotozoals / anti-malarials), according to the Anatomical Therapeutic Chemical (ATC) classification system (see Appendix A 1 in the "Guidelines for Application for Registration of Pharmaceutical Products in Tanzania").

Samples required as part of new registration application

Five sealed samples of the smallest commercial pack and sufficient of the drug in the different packs to enable analytical tests to be performed as per applicant's method of analysis of the final product must be enclosed.

Capsules /Tablets

5 sealed samples of the smallest commercial pack; 3 samples for analysis and 2 samples as reference for the Pharmacy Board are required.

Injectables

Vials:	20 samples
Ampoules (1-2 ml sizes):	30 samples
Ampoules (5-10 ml sizes):	20 samples
Ampoules (more than 20 ml sizes) ⁶⁸ :	5 samples

Syrups / Creams / Ointments

Five sealed samples (as described above).

The samples of the drug product must be in the form and packing(s) in which it is to be marketed in Tanzania. The active ingredients and the other ingredients used in the manufacture of the product must be indicated. Reference standards /substances for the drug (active ingredient), impurities, related substances, etc. must be shown. Packaging material, containers, closures, dose-measuring devices, applicators, giving sets, packaging inclusions etc. must also be presented.

⁶⁸ It is not clear how many samples needed for ampoules between 10-20 ml

Application fees

The application fee required for drug products imported into Tanzania as a finished product is US \$500, while drug products manufactured in Tanzania is US \$100. The application fee for drugs imported into Tanzania and relabeled and/or repacked locally is US \$200. The fee for any alterations to the original application or registration certificate is US \$20 for both foreign and local manufacturers. Other charges to the applicant may include costs incurred for the purpose of carrying out laboratory investigations prior to the registration of any product. Any (additional) copy of the certificate of registration will incur a fee of US \$10. All fees and charges are payable to the Pharmacy Board.

Who May Apply for Registration

An application for registration of a drug product can be made by:

- (i) the person responsible for the composition of the product (the manufacturer or the person to whose order and specifications the product is manufactured) (i.e. principal)
- (ii) the person responsible for placing the product on the market (e.g. a person who purchases a ready-made product and assembles it or arranges for its assembly as his own proprietary product)
- (iii) the person who imports the product or the person⁶⁹ authorized by the manufacturer (e.g. an agent).
- (iv) an agent for a foreign / local manufacturer must file a blanket power of attorney, which authorizes him to speak for his principal in all matters relating to the latter's specialties.

The applicant is responsible for the product and all information supplied in support of his application for registration of the product, and is responsible for updating any information relevant to the safe and efficacious use of the product.

Information Required for Registration

- i) An application for drug registration must include the following
- ii) The application form
- iii) The necessary data/particulars and appropriate supporting documents
- iv) The correct fee
- v) Required samples of the drug product

When an application for registration is accepted, an acknowledgement of receipt is issued together with a reference number for each product. This reference number must be stated in all correspondence with the authority in connection with the product. If necessary, the secretariat may request further supplementary data, documentation or samples. The applicant will need to make available such data, documentation or sample as required within a specified period of time. An extension may be filed by contacting the Authority. The applicant will be notified of the Pharmacy Board's decision whether or not the product is accepted for registration. If the product has satisfied the requirements of the authority, a certificate of registration together with provisions, conditions and limitations of registration will be issued⁷⁰.

⁶⁹ Person includes an individual body, sole proprietor, limited company, registered business, etc

⁷⁰ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition

The Pharmacy Board's Annual Report indicates that the waiting time before the Board gives its verdict on any application for drug registration has been reduced from an average of 24 months to an average of 4 months for old molecules and 6 months for new molecules⁷¹. The Medical Stores Department's tender items are given preference over the rest of the public and private sector applications. A complete registration dossier facilitates a faster processing of the registration application.

The approved drug registration is valid for 5 years from the date of issuing registration certificate, and is subject to payment of annual retention fee⁷² of US \$100, to be paid before the end of each year or by the 31st of January. The registration of a product is valid until the end of the period specified in the registration certificate unless it is suspended, cancelled or revoked by the Pharmacy Board.

Application of re-registration of products with a specified period of registration must be submitted at least 60 days before the expiry date of such registration.

Good Manufacturing Practice (GMP)

Tanzania has its own GMP guidelines⁷³ based on the WHO Guidelines. Manufacturers are required to comply with these guidelines. It is an official requirement that products registered under the PPB in Tanzania have to be manufactured under GMP. The pharmaceutical inspectorate uses GMP as a basis for assessing manufacturing standards. All products submitted for registration are required to submit a GMP certificate accompanying the information for registration. The inspectorate is charged with the function of inspecting the manufacturing premises (both local and outside of the country) to verify that GMP is complied with.

All imported drugs must be registered in the country of origin and have WHO Good Manufacturing Practice (GMP) certification⁷⁴. Locally manufactured drugs must also be manufactured under GMP in order for them to be registered in Tanzania.

Although GMP is a formal requirement for all locally manufactured and imported products, it should be noted that none of the local manufacturers and many of the manufacturers outside of Tanzania meet the GMP standards set by the Board and therefore, are not registered with the Board. Imported drugs must be registered in the country of origin and have WHO GMP certification⁷⁵. As discussed earlier, there are plans to put mechanisms in place for assuring that manufacturers meet recognized standards for drug manufacturing⁷⁶.

⁷¹ Pharmacy Board, Ministry of Health, Tanzania. Annual Report 2000.

⁷² United Republic of Tanzania. The Pharmaceuticals and Poisons Act, 1978 [No. 9 of 1978]. Subsidiary Legislation: Pharmaceuticals and Poisons Order, 2001. Page 47

⁷³ Good Manufacturing Practice

⁷⁴ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁷⁵ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁷⁶ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

Box 2: Categories of drugs in Tanzania

Prescription Only Medicines (POM)
Over The Counter Medicines (OTC)
Dangerous Drugs
Psychotropics

In the proposed new law under the Food and Drug Agency an additional group of Pharmacy Only (P) drugs will be added.

Requirements for different drug combination products

A separate application is required for each product. Products containing the same ingredients but made to different specifications (strength or content of ingredients, dosage form, etc) or by a different manufacturer require separate applications for product registration⁷⁷.

Requirements for different dosage forms

Different dosage forms of products containing the same ingredient require a new application for registration. The guidelines for drug registration⁷⁸ state that:

“A major change in active ingredient (quantitative or qualitative) or dosage form will necessitate a new application for registration”.

For example, if a rectal artesunate suppository is to be introduced and if oral artesunate is already registered in Tanzania, a new application will be required. The dossier must include information on the rationale for the combination, pharmacokinetics, bioavailability, half-life, efficacy, toxicity and safety profile of the combination. Evidence from clinical trials must be submitted. These trials must be conducted in malaria endemic countries. Trials conducted outside of Africa are accepted as evidence.

The information and documents required are:

- a) One copy each of the drug registration application form (PBF 27)
- b) Forms in annexes A, B, D & E
- c) A summary of annex C if the submission is being made by the manufacturer. If it is being made by the formulator, they may make a reference to information on manufacturing of the ingredients of the combination from the source of the products.
- d) A fee of US\$ 500

Requirements for fixed-dose combinations

This is treated like a new drug and a new application must be made. It will undergo the same procedure as a new drug.

⁷⁷ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition

⁷⁸ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition

For example, if artesunate and amodiaquine are already registered separately and approved for use in Tanzania and a fixed-dose combination of both artesunate and amodiaquine (both ingredients combined in the same tablet or capsule) is planned for use in the country, separate application must be made.

The information and documents required are:

- a) One copy each of the drug registration application form (PBF 27)
- b) Forms in annexes A, B, D & E.
- c) A summary of annex C if the submission is being made by the manufacturer. If it is being made by the formulator, they may make a reference to information on manufacturing of the ingredients of the combination from the source of the products.
- d) A fee of US\$ 500

This fixed-dose combination can be considered under the product category “New combination of well established ingredients” in *Appendix I* of the guidelines⁷⁹. The dossier must include information on the rationale for the combination, pharmacokinetics, bioavailability, half-life, efficacy, toxicity and safety profile of the combination. Evidence from clinical trials must be submitted. These trials must be conducted in malaria endemic countries. Trials conducted outside of Africa are accepted as evidence.

The procedure may be expedited, but not necessarily.

Requirements for pre-packaged combinations

It would appear that a separate registration application would be required for each dosage form.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Tanzania.

When the guidelines for registration were developed, this concept was not considered and thus the guideline does not address the issue of pre-packaged combinations. The Pharmacy Board is skeptical of pre-packaged combinations⁸⁰ and is in the process of examining their utility and registration requirements.

In general, a non-fixed dose combination is seen as two separate drugs as each one has its own manufacturing batch number. An application for registration of the pre-packaged product may be considered by the Board on an individual basis provided enough evidence is submitted to substantiate the benefits of the pre-packaged versus co-administered products.

The information and documents to be submitted are:

- e) One copy each of the drug registration application form (PBF 27)
- f) Forms in annexes A, B, D & E.

⁷⁹ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition

⁸⁰ Personal communication, Mr. Muhangwa, Drug Registration Department, Ministry of Health, Tanzania; 3 13 02.

- g) A summary of annex C if the submission is being made by the manufacturer. If it is being made by the formulator, they may make a reference to information on manufacturing of the ingredients of the combination from the source of the products.
- h) If the drugs are imported in Tanzania and relabeled and/or re-packaged locally, a fee of US\$ 200 is required.

Evidence from clinical trials is required to be submitted. These trials must be conducted in malaria endemic countries. Trials conducted outside of Africa are accepted as evidence.

Requirements for non-fixed dose combinations (co-administered combinations)

These are known as “of the shelf” combinations. For example, if artesunate and amodiaquine are already registered separately and approved for use in Tanzania as individual treatments, to use this combination together i.e. co-administered (not pre-packaged), there is no need to re-register the combination. The decision to combine two drugs must be the decision of the attending physician. The manufacturer/formulation may recommend that two drugs be used in combination with evidence that the combination works better than the individual monotherapies.

Requirements for prepackaged fixed-dose combinations of different duration

For a change in the treatment regimen, a notice must be filed to the Registrar of the Pharmacy Board in the form of a letter, together with evidence substantiating the value of the changed duration. Evidence from clinical trails showing differences in the reduction of parasitaemia and recrudescence must be made. A separate application for registration need not be made. A fee of Tsh. 20,000 is required to accompany the notice.

For example, Coartem® is a fixed-dose combination containing artemeter and lumefantrine. It is marketed as Coartem-4® (4 does of 4 tablets each, for 2 days) and Coartem-6® (6 doses of 4 tablets each, for 3 days).

According to the Guidelines for Application for Registration of Pharmaceutical Products in Tanzania⁸¹:

“Products other than injectables made by the same manufacturer to the same specifications, strength (content) of ingredients and form, but differing only in packing or pack sizes require only one application for product registration”⁸².

The same fixed-dose combination but of different duration can be considered under the product category “Products similar (same ingredients, strength, dosage form) to already registered products but claiming new route of administration or use (therapeutic indications)” in Appendix I of the Guidelines.

Patented products manufactured under license by different manufacturers or in different countries under the same parent firm require a separate product registration.

⁸¹ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition

⁸² The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania. November, 1999. Second edition (Page 6, Section 6.1)

Changing a drug schedule after registration

In order to make a new recommendation accessible to the population, it may be necessary to change the level of facility from which it should be available, for example, changing from a POM to an OTC medicine. The NMCP must approach the Chief Medical Officer (CMO) who is the Chair of the Pharmacy Board for any issues concerning changing the schedule and status of any antimalarial. This matter will be presented and discussed at the Board meeting. The decision to deregulate will be relayed by the CMO through a policy statement issued in the government Gazette, which gives it a legal status. The information is then disseminated to wholesalers and suppliers of medicines.

Standard Treatment Guidelines and the National Essential Drugs List

The second edition of the National Essential Drugs List (NEDLIT) and Standard Treatment Guidelines (STGs) was published in 1997⁸³. Both the Pharmaceuticals and Poisons Act and the NEDLIT are currently under major review to accommodate present day needs⁸⁴. The revised NEDLIT will soon be available for distribution.

The NEDLIT is currently under review. The proposed changes include a total of 70 additions and one deletion. Major proposed changes are the introduction anti-malarial drugs and anti-retrovirals. Two sulfonamide / pyrimethamine combination drugs have already been introduced. The proposed list includes: 5 new anti-malarial drugs (3 artemisinin derivatives and mefloquine at referral hospital level and amodiaquine at dispensary level) over and above the 5 currently available⁸⁵.

The WHO Essential Drugs List (EDL) acts as a guide for the Tanzania NEDLIT, however the drugs on the Tanzania NEDL are based on country needs and inclusion is not dependent on whether it is on the WHO EDL.

Inclusion of new drugs on the NEDLIT and STG

Changes to the STG & NEDLIT are decided upon by the National Drug and Therapeutics Committee (NDTC). The Chief Pharmacist is the Secretary to this committee. External experts may be co-opted for submission of a report. A request may be made by the National Malaria Control Program for inclusion of a new antimalarial on the NEDL or STG to the Chief Pharmacist.

Replacement of a listed drug or inclusion of a new drug to the STG & NEDLIT may be submitted by completing the Modification Form (see Annex 4), which is available on the last page of the STG& NEDLIT 1997⁸⁶. This request must also be made to the Chief Pharmacist.

List of registered drugs

A list of registered drugs is published in the document “Subsidiary Legislation: Pharmaceuticals and Poisons Orders, 2001”⁸⁷, also known as the “Pharmaceuticals and Poisons (registered Human Drugs List) (Notification) Order, 2001”. An additional list of registered human drugs (and veterinary drugs) is also published by the Pharmacy Board⁸⁸. Both documents may be obtained from the Pharmacy Board.

⁸³ Ministry of Health, United Republic of Tanzania. Standard Treatment Guidelines (STG) and the National Essential Drug List for Tanzania (NEDLIST), April 1997.

⁸⁴ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁸⁵ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁸⁶ Ministry of Health, United Republic of Tanzania. Standard Treatment Guidelines (STG) and the National Essential Drug List for Tanzania (NEDLIST), April 1997.

⁸⁷ United Republic of Tanzania. The Pharmaceuticals and Poisons Act, 1978 [No. 9 of 1978]. Subsidiary Legislation. Pharmaceuticals and Poisons Orders, 2001. Registered Human Drugs List (Notification), List of Human Notified Drugs, and Veterinary Drugs List (Notification). Government Printer, Dar Es Salaam, 2/2/2001.

⁸⁸ Pharmacy Board, Ministry of Health, United Republic of Tanzania. List of Registered Drugs.

Registered combinations

Artemisinin and several of its derivatives are already registered in the country, although they are not on the National Essential Drugs List (NEDLIST) nor are they included in the Standard Treatment Guidelines (STGs). To retard the development of parasite drug resistance, these derivatives are to be used only on a limited basis in a responsible way. These derivatives include:

- artemisinin (in oral and rectal dosage forms),
- dihydro-artemisinin (oral dosage forms),
- artemether (IM and oral dosage forms),
- artesunate (oral dosage forms)
- sodium artesunate (IV)⁸⁹

Table 2 illustrates the list of registered antimalarials and their corresponding category:

The Tanzania Ministry of Health

Administrative functions in the MoH are the responsibility of the Principal Secretary of the MoH. The Chief Medical Officer is the highest technical position in the MoH and falls under the Principal Secretary. The Pharmacy Board and the National Malaria Control Program have horizontal linkages and both fall under the CMO.

The National Malaria Control Program (NMCP)

Roll Back Malaria (RBM) in Tanzania is implemented by the National Malaria Control Program (NMCP), under the Department of Epidemiology where it is directly responsible to the Directorate of Preventive Services. The NMCP, with support from WHO and a range of donors and NGOs, has been centrally involved in supporting and implementing a range of malaria control activities in Tanzania, which pre-dated RBM by many years⁹⁰.

Contacts

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Registrar
Pharmacy Board
P.O. Box 77150
Dar es Salaam, Tanzania

2. Pharmacy Board
Ministry of Health
P.O. Box 9083
Dar es Salaam, Tanzania⁹¹

⁸⁹ Ministry of Health, United Republic of Tanzania. National Guidelines for Malaria: Diagnosis and Treatment. Malaria Control Series 1, 2000.

⁹⁰ Starling, M. Annex 5: Country Case study summary – Tanzania. In: Addressing Malaria Sector-wide: Improving co-ordination and management of external support. Working document prepared by The Malaria Consortium. Fourth Global Partners Meeting, Washington, D.C. April 18-19, 2001.

⁹¹ The Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Application for Registration of Pharmaceutical Products in Tanzania, November, 1999. Second edition.

Chairperson: Dr. G. L. Upunda
Secretary: Mr. Mhume (Chief Pharmacist)
Head of Drug Registration: Dr. N.B. Chukilizo

3. Dr Alex Muita
National Malaria Control Program Manager
P.O Box
Dar es Salaam, Tanzania.

Procurement

In Tanzania, manufacturers, wholesalers, sub-wholesalers, donors and the Medical Stores Department (MSD) are the principal distributors of pharmaceuticals and medical supplies in Tanzania.

The Pharmacy Board is committed to the National Drug Policy principle of promoting local manufacture^{92 93}.

Medical Stores Department (MSD)

The MSD was established in 1993 as a semi- autonomous and non-profit organization to procure, store, distribute and sell health commodities to the public sector and authorized private organizations⁹⁴. MSD has a Board of Trustees responsible to the Minister of Health for the management and efficient implementation of MSD's functions⁹⁵. The Government deposits funds for its health facilities with MSD. MSD thus has a virtual monopoly and is the predominant single distributor of pharmaceuticals and supplies to all public sector health facilities⁹⁶.

The procurement section of MSD is responsible for the procurement of drugs and medical supplies. It is responsible for the preparation of tender documents, seeking authority from the Medical Tender Board, floating of the tender, tender adjudication, making recommendations for supplier selection, liaison with the suppliers, insurance, clearing and forwarding, and supplier information management system.

Medical Tender Board (MTB)

The mandate of the Medical Tender Board is concerned with advertising, receiving and opening of all tenders for the purchase of the pharmaceuticals and other supplies required by MSD and for appointing the appropriate suppliers. The MTB does not have any responsibility or accountability for MSD's performance⁹⁷.

Procurement of pharmaceuticals, medical equipment, and supplies are done on an open, competitive basis following the rules and regulations of the Medical Tender Board⁹⁸. Tenders for the acquisition of drugs and medical supplies are governed by Medical Tender Board

⁹² Heltzer, Ned. "SEAM Initiative. Tanzania Country Assessment: Private Pharmaceutical Sector".

G:\SEAM\Country Assessemnts\Tanzania Assessment\Reports\Ned's draft report (3).

⁹³ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

⁹⁴ Hazemba, Oliver. SEAM Country Assessment: Medical Stores Department. G:\SEAM\ Country Assessments\Tanzania Assessment\Reports\Tanzania SEAM Report – MSD. June 2001.

⁹⁵ Hazemba, Oliver. SEAM Country Assessment: Medical Stores Department. G:\SEAM\ Country Assessments\Tanzania Assessment\Reports\Tanzania SEAM Report – MSD. June 2001.

⁹⁶ Heltzer, N. SEAM Initiative. Tanzania Country Assessment: Private Pharmaceutical Sector. June 2001.

G:\SEAM\Country Assessments\Tanzania Assessment\Reports\Ned's draft report (3)

⁹⁷ DANIDA. External review of the Medical Stores Department. Report prepared by an external review team, Tanzania, November 1998. (page 26)

⁹⁸ Medical Stores Department, Tanzania. In-house Rules and Regulations. December 13, 1996. (Part IV: Procurement Provisions)

Regulations and the Medical Stores Department (MSD). The MSD regulations stipulate that as far as possible all types of purchases will be procured from actual manufacturers or genuine and authorized dealers⁹⁹.

Quantification

MSD uses consumption figures available from stock bin cards. Vital, Essential and Necessary (VEN) and ABC analyses are also used in addition to historical consumption reports to determine the amounts required. The MSD policy is to maintain a 12 months stock in addition to a buffer stock of 3 months, giving a maximum stock of 15 months. Each time the stocks go below a 15 months' requirement, MSD begins the procurement process¹⁰⁰.

Supplier Selection / Tender Management / Contract Terms

MSD uses a mixture of International Competitive Bids, Restricted Tenders and Emergency Orders. Drugs are purchased generically, mainly from foreign suppliers and according to internationally accepted standards. MSD also actively encourages the participation of local drug manufacturers in procurement.¹⁰¹

About 90% of MSD orders fall within the category of International Competitive Bids. Data available from bids made in the late 1990s points to MSD's ability to tender and negotiate for the best prices on the market^{102 103}.

MSD purchases through an open international tendering system and local manufacturers get preferences for items they produce. However, none of the local manufacturers meets the WHO or the Pharmacy Board's GMP standards. Locally produced drugs are therefore not registered with the Board.

Quality Assurance for Drug Registration and Procurement

The Drug Quality Control Laboratory (DQCL)

This was established in 2000. The main tasks of this laboratory are to:

- a) assist with national drug registration
- b) assist with drug inspection
- c) assist the Medical Stores Department (MSD) in controlling the quality of their supplies
- d) develop a quality assurance policy.

Quality testing has been done mostly on samples submitted by the drug inspection unit (49%), drug registration unit (31%) and other clients like MSD (20.6%). All medicinal products are now

⁹⁹ Medical Stores Department, Tanzania. In-house Rules and Regulations. December 13, 1996. (Part IV: Procurement Provisions)

¹⁰⁰ Hazemba, Oliver. SEAM Country Assessment: Medical Stores Department. G:\SEAM\ Country Assessments\Tanzania Assessment\Reports\Tanzania SEAM Report – MSD, June 2001.

¹⁰¹ DANIDA. External review of the Medical Stores Department. Report prepared by an external review team. Tanzania, November 1998. Page 2

¹⁰² Hazemba, Oliver. SEAM Country Assessment: Medical Stores Department. G:\SEAM\ Country Assessments\Tanzania Assessment\Reports\Tanzania SEAM Report – MSD. June 2001.

¹⁰³ DANIDA. External review of the Medical Stores Department. Report prepared by an external review team. Tanzania, November 1998. Page 2.

required to undergo quality testing before registration. Products that fail the quality control tests are not recommended for registration.

The WHO Certification Scheme

Tanzania is officially listed as a participant in the WHO certification scheme for drugs. However, this represents their intent for participation. In actual fact, Tanzania does not vigorously apply the scheme¹⁰⁴.

Drug Inspectorate

The inspection unit is the compliance monitoring and enforcement arm of the Pharmacy Board. The unit's functions include: inspection of premises for licensing purposes; GMP; monitoring of compliance with standards in all retail and public sector pharmacies, public and private wholesalers, inspection of narcotics, inspection of imported drugs at ports of entry, post-marketing surveillance of drugs, and conducting special inspections in any premises if there is suspicion of unethical handling of medicine"¹⁰⁵.

Drug Information Unit

This unit provides relevant drug information to health care professionals and the public at large. The unit monitors and provides information on: adverse drug reactions; management of drug poisonings; rational drug use; and Board related information. The unit also screens and monitors all advertisements on drugs in the media"¹⁰⁶ to make sure that all comply with the required standards as set by the Board.

Performance of post-marketing surveillance

Some post-marketing surveillance has been conducted at different pharmaceutical outlets in Tanzania. Substandard samples of antimalarials have been found on the market¹⁰⁷.

Importation of drugs in Tanzania

The PB is authorized by law to issue a permit for the importation of products. This import permit must be obtained prior to confirmation of an order for the importation of any product. Permits are to be used only once at the port of clearance. A permit fee to be determined by the Board is charged. The permit should bear the full name of the superintendent pharmacist together with his/her registration number, date and stamp of the company as well as the name and address of the exporter and the importer, description of the product, quantity, registration number, country of manufacture/origin and total value. To apply as an authorized importer a form must be completed. For each importation (which can include several products), a separate form must be completed and submitted to PB to request for a permit to import drugs.

Importation of Pharmaceuticals:

¹⁰⁴ Wehrli, A. Telephone communication with N.Teoh, March 11, 2002.

¹⁰⁵ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

¹⁰⁶ Pharmacy Board, Ministry of Health, Tanzania. Annual Report 2000

¹⁰⁷ Mandisa. H. Tanzania SEAM Assessment Report. Final Draft. G:\SEAM\Country Assessments\Tanzania Assessment \Report\Final Draft – Mandisa.

The Pharmaceuticals and Poisons Act, 1978 ‘requires that any person dealing with importation of pharmaceuticals must be registered by the Pharmacy Board and that imported products must be registered as per requirements stipulated in the Pharmaceuticals and Poisons Regulation of 1990’¹⁰⁸. The “Guidelines for Importation of Pharmaceuticals” that is provided by the Pharmacy Board details the requirements for importation of pharmaceutical products and raw materials as per the Regulation. For each drug to be imported, an application must be submitted to the Registrar of the Pharmacy Board. This import application includes the Proforma Invoice from the supplier, which should include the following information for each drug to be imported:

- The INN (generic) name of the drug and the strength of each active ingredient
- The Pharmacopoeia specification of each ingredient
- The quantity to be imported
- The country of origin
- The name of the manufacturer and supplier of the drug
- The trade or proprietary name of the drug
- The Product registration number as approved by the Pharmacy Board.

The Registrar of the Pharmacy Board reviews the application and on approval of the application, prepares a ‘Certificate of Official Approval to Import Approved/Registered Drugs’. Each approved Proforma Invoice is valid for only one import transaction. A Pharmacy Board fee of 2% of FOB value of the goods is also assessed by the Registrar and paid by the applicant. Pre-shipment inspection of the drugs is currently done by *Cotecna*, the approved inspection agent, who releases a ‘Clean Report of Findings’ on completion of the assessment. On receipt at the Port of entry, the shipment shall be accompanied by the pre-shipment report; a certificate of analysis for the batch; and a Certificate of Chamber of Commerce from the country of origin. The imported drugs are then subject to a physical inspection by the Drug Inspector prior to release from the Port of Entry (a list of the fifteen approved Ports of Entry for all pharmaceutical products and raw materials is included in the Guidelines). Products imported for research purposes in approved institutions may be exempted from these regulations subject to application to, and approval by the Pharmacy Board.

Procurement in the private sector

Procurement in the private sector is done on an individual basis. There are several importers and wholesalers in Tanzania. Importers import medicinal products from foreign countries and either act as wholesalers or they may supply other wholesalers. Often the importers hold agencies and distribution rights for multinational manufacturing companies. Wholesalers may procure locally from manufacturers and importers and supply to the private distribution chain, which may include hospitals, pharmacies, drugstores, shops and supermarkets.

¹⁰⁸ Pharmacy Board, Ministry of Health, United Republic of Tanzania. Guidelines for Importation of Pharmaceuticals, August 2000.

SUMMARY:

All drugs imported and/or used in Tanzania must be registered with the Pharmacy Board of the Ministry of Health, as provided by the 1978 Pharmacy and Poisons Act. This Act is currently under review and is expected to be tabled in Parliament for review in 2002. The Pharmacy Board has 12 members including the Chief Medical Officer who chairs the board and the Chief Pharmacist, who is responsible for Policy decisions.

A complete registration application requires that an “Application for Registration of a Drug” form be filled and a copy sent to the Registrar of the Pharmacy Board. In addition, supporting documents relating to the product particulars, pharmaceutical data on the particular dosage form, chemistry and pharmacy of the active ingredient, preclinical studies, clinical data relating to the drug, and a GMP certificate are required. Five sealed samples of the smallest commercial pack, in the form and packing to be marketed in Tanzania and sufficient of the drug to enable analytical tests to be performed should also be submitted with the application. More samples are required for the smaller ampoules of the injectables. The application fee ranges from \$500 for a drug imported into Tanzania to \$100 for products manufactured in Tanzania. Other charges may be incurred including the costs for the laboratory investigations prior to registration. If the product satisfies the requirements of the Board, a certificate of registration together with provision, conditions, and limitations of registration will be issued. The registration process takes on average 4-6 months, and an approved drug registration is valid for 5 years unless it is suspended, cancelled or revoked by the board.

Tanzania has its own Good Manufacturing Practice guidelines and it is an official requirement that all product registered by the board have to be manufactured in adherence to these guidelines. This requirement is currently not being met by any of the local manufacturers and by many of the manufacturers of the imported drugs; however there are plans in place to ensure that this changes.

Each product requires a separate application as do products containing the same ingredients but made to different specifications – i.e. different strength or content of ingredients, different dosage forms, fixed dose combinations,. However, the guidelines do not address the issue of pre-packaged combinations as this concept was not considered when the guidelines were developed. Thus the pre-packaged combinations are seen as two separate drugs. The board may consider an application for a prepackaged product provided that enough evidence is submitted to substantiate its benefits vis-à-vis the co-administered products. There is no need to re-register co-administered combinations of previously registered drug products. Any changes in the scheduling of a drug after it has been registered must be approved by the Pharmacy Board.

The Medical Stores Department, which is run by a Board of Trustees responsible to the ministry of health, is the main distributor of pharmaceuticals and other medical supplies to the public sector health facilities.

Antimalarials in Tanzania¹⁰⁹¹¹⁰

	Drug /Dosage Form	Brand	Generics
1	Amodiaquine tabs (IPCS lab, India)		Y
	Betaquine® tabs	Y	
	Emoquin® tabs, susp	Y	
	Maratab ® tabs	Y	
	Camoquin® susp	Y	
	Comaquine® tabs	Y	
	Amobin® tabs, susp	Y	
	Malaratab® tabs	Y	
2	Quinine tabs (Sterop Lab-Belgium, Elys Chemical-Kenya, Remedica Ltd- Cyprus)		Y
	Quinine inj (Flamingo Pharm – India, Pharmamed – Malta)		Y
	Quinitab® tabs	Y	
	Quine® tabs	Y	
	Quinimax® tabs	Y	
	Quinaquin® syr	Y	
	Cinkona® tabs, inj	Y	
	Linquine-F® inj	Y	
	Quinishal® inj	Y	
	Kwinil-300® tabs	Y	
	Kwinil® inj	Y	
3	SP tab (Medopharm – India)		Y
	Nopyrin® tabs	Y	

¹⁰⁹ Pharmaceuticals and Poisons (Registered Human Drugs List) (Notification) Order, 2001

¹¹⁰ Pharmacy Board, Ministry of Health, Republic of Tanzania. Additional List of Registered Human Drugs.

	Malastop® tabs	Y	
	Rimodar® tabs	Y	
	Falcidin® tabs	Y	
	Orodar® tabs	Y	
	Fansidar® tabs, inj	Y	
	Laridox® tabs	Y	
	Malpan® tabs	Y	
	Metakelfin® tabs	Y	
	Intadoxine® tabs, susp	Y	
	Falcistat® tabs	Y	
	Malareich® tabs	Y	
	Malostat® tabs	Y	
4	Artemether tabs, caps(Kunming Pharm-China)		Y
	Artemether inj (Kunming Pharm-China, Rotexmedica GMBH-Germany)		Y
	Artemether pediatric inj (Rotexmedica GMBH-Germany)		Y
5	Dihydroartemisinin		N
	Cotecxin® tabs	Y	
	Malaxin® tabs	Y	
	Artesunate® tabs	Y	
6	Artesunate tabs		N
	Arinate® tabs	Y	
	Arsumax® tabs	Y	
7	Coartem® tabs	Y	
8	Mefloquine		N

	Larimef® tabs	Y	
	Mephaquin® tabs	Y	
9	Halofantrine		N
	Halfan® tabs, susp	Y	
10	Proguanil	Y	
11	Doxycycline caps	Y	Y
12	Tetracycline cap	Y	
13	Azithromycin tabs	Y	

List of documents in the annexes

1. Application for Registration of a Drug (Form PBF 27, pages 169-172 in Guidelines for Application for Registration of Pharmaceutical Products in Tanzania).
2. Table of Requirements of Data/Particulars to be Submitted with Applications for Product Registration (Appendix I, pages 14-15 in Guidelines for Application for Registration of Pharmaceutical Products in Tanzania).
3. Guide to which submission of data may be abridged (Appendix II, pages 16-18 in Guidelines for Application for Registration of Pharmaceutical Products in Tanzania).
4. Standard Treatment Guidelines and the National Essential Drug List Modification Form in Standard Treatment Guidelines (STG) and The National Essential Drug List for Tanzania (NEDLIT), April 1997, Second Edition
5. List of publications for health care professionals that can be obtained from the Pharmacy Board
6. Contacts & Resources in Tanzania

Chapter Three Ghana

ACRONYMS

BMC	Budget Management Centre
CDS	Catholic Drug Service
CHAG	Christian Health Association of Ghana
CMS	Central Medical Stores
DMS	District Medical Stores
EDL	Essential Drugs List
EDP	Essential Drugs Program
EPI	Expanded Program on Immunization
FDB	Food and Drugs Board
GCP	Good Clinical Practices
GMP	Good Manufacturing Practices
GNDP	Ghana National Drugs Program
ICB	International Competitive Bidding
IDF	Import Declaration Form
MOH	Ministry of Health
NCB	National Competitive Bidding
NGO	Non-governmental Organization
NMCP	National Malaria Control Program
NQCL	National Quality Control Laboratory
OTC	Over-the-counter
PC	Pharmacy Council
PU	Procurement Unit
RBM	Roll Back Malaria
RMS	Regional Medical Stores
SSDM	Supplies, Stores & Drug Management
STG	Standard Treatment Guidelines
WHO	World Health Organization

INTRODUCTION

Malaria accounts for over 40% of all outpatients seen at health facilities and 25% of under five mortality in Ghana¹¹¹. It is also the leading cause of adult morbidity, and the leading cause of workdays lost due to illnesses.¹¹² The overall goal of RBM in Ghana is to facilitate human development by reducing the malaria disease burden by 50% 2010. A major component of the overall strategy is improved case management.

While chloroquine is still the first line therapy for the treatment of uncomplicated malaria in Ghana, resistance monitoring carried out between 1992 to the present revealed RI-RII resistance levels of 3-22%. It is likely that chloroquine resistance will soon reach unacceptable levels and warrant a change in the first line therapy for malaria. At present the second line therapy is SP, while quinine remains the treatment of choice for severe malaria. Ghana will soon be faced with having to make difficult decisions about the choice for the first line therapy. Experience in Southeast Asia and East Africa has shown that SP has a limited useful therapeutic life.

¹¹¹ Roll Back Malaria Strategic Plan for Ghana. Ministry of Health, Accra, Ghana, 2000.

¹¹² Roll Back Malaria, WHO. Country Strategies and Resource Requirements. (*WHO/CDS/RBM/2001.34*) 2001

Legal Processes and Requirements

Drug Registration

All pharmaceutical products, including antimalarials intended both for use in Ghana in the public and private sectors as well as for export must be registered with the Food and Drugs Board (FDB) within the Ministry of Health. New indications for existing drugs must also be registered. The Regulation on Registration of Drugs in Ghana¹¹³ state that:

“No drug, cosmetic, medical device or chemical substance [is to be] manufactured, imported, exported, advertised, sold or distributed in Ghana unless it has been registered in accordance with Section 18 of The Food and Drugs Law (PNDCL 305B) 1992.”

Box 1: The Food and Drugs Law

The Food and Drugs Law Part II governs the use of drugs, cosmetics, devices and chemical substances. The law was amended in 1992 and is concerned with the sale, standards, advertisement, manufacture, importation and registration and licenses of such products. The regulatory authority that governs the implementation of this law is the Food and Drugs Board (FDB).

The Drug Regulatory Authority

The Food and Drugs Board (FDB)

The Food and Drugs Board was established through the Food and Drugs Law (est. 1992, legis. initiative 1999). The FDB has the statutory responsibility for assuring the safety and quality of all pharmaceuticals available for market in Ghana. Duties of the Board include the process of registering drugs from both local and international sources; the inspection and regulation of local pharmaceutical manufacturers; the inspection of suppliers and warehouses; the monitoring of drug imports and exports; and the conduct of post-market drug surveillance¹¹⁴.

Office of the Chief Pharmacist

The Chief Pharmacist is accountable to the Minister of Health for all responsibilities that pertain to pharmaceutical products and services. The majority of the work is governed by two statutory bodies, the Pharmacy Council and the Food and Drugs Board. The Office of the Chief Pharmacist is also responsible for the upkeep of Ghana’s Essential Drugs List and Standard Treatment Guidelines¹¹⁵.

¹¹³ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992.

¹¹⁴ H:\SEAM\CountryAssessments\Ghana assessment\Reports\Field Report 1

¹¹⁵ Amenyah, J. Personal communication with N. Teoh, March 18, 2002.

The Pharmacy Council

The Pharmacy Council was established through the Pharmacy Act (est.1994, legis. initiative 1998). The Pharmacy Council is the regulatory body that has oversight responsibility over all pharmacy and chemical seller (CS) operations.

Duties of the Council are to: (1) license pharmacies and chemical sellers shops; (2) inspect pharmacies and chemical sellers shops; and, (3) establish curriculum and training for pharmacists. Among the activities of the council inspectors is to monitor the quality of drugs¹¹⁶ circulating on the market.

New registrations

All drugs for use in the public and the private sector, including manufactured and imported products, must first be registered with the Food and Drugs Board. Although there may be illegal drugs on the market that are not registered, the rule still formally applies¹¹⁷.

The drug registration process, including samples of the necessary application forms; are described in detail in the document “Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992”¹¹⁸.

Drug registration applications are necessary for the following categories of situations:

- ❖ All drugs to be used in Ghana for both public and private sectors
- ❖ New indications for existing registered drugs
- ❖ Drugs required for identified public health programs shall be selected in accordance with the objectives of the specific programs and shall be designated ‘program drugs’
- ❖ Drugs required for specialist use for the purpose of teaching, research, clinical trials or treatment of specific diseases shall be designated as ‘special drugs’. These drugs are not for general use and a special request to the Minister of Health shall be required before they are made available for a specific use¹¹⁹.

Drugs that are used in the country are classified in accordance with the provisions of the Food & Drug Law 1992 (PNDC Law 305B), and the Narcotic Drugs Law 1990 (PNDC Law 236).

The following special situations are exempt from drug registration applications:

- ❖ Drugs imported for the specific use of individual patients shall be *exempted* from registration requirements but shall be authorized by the Minister of Health¹²⁰.
- ❖ Importation or manufacture of drugs, cosmetics, medical devices and chemical substances (drugs) for the purpose of registration (the necessary product samples) or clinical trial may be granted a permit by the Food and Drugs Board (FDB)¹²¹.

¹¹⁶ H:\SEAM\CountryAssessments\Ghana assessment\Reports\Field Report 1

¹¹⁷ A recent pilot study conducted by the Board found about 8% of drugs on market are unregistered

¹¹⁸ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992.

¹¹⁹ Ministry of Health, Republic of Ghana. Ghana National Drugs Policy. March, 1998.

¹²⁰ Ministry of Health, Republic of Ghana. Ghana National Drugs Policy. March, 1998.

¹²¹ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992.

Application fees

All applications must be accompanied by a registration fee of US \$1,000 for each finished imported drug. The registration fee for a semi-processed imported drug is ₵1,000,000 while a locally manufactured drug is ₵500,000. Each of these registrations is valid for 3 years and must be re-registered every 3 years. The renewal fees are the same as mentioned above (see Annex 2 of the Draft Legislative Instruments on The Food and Drugs Law on Fee Schedule)¹²².

Who may apply for drug registration?

The application to register a drug should be made by the manufacturer.

Information required for registration

The form “Application for Registration of a Drug” (see Annex 3), which includes the following appendices, must be completed and submitted to the FDB in duplicate:

Appendix I	General product specifications
Appendix II	Manufacturing procedures and related controls
Appendix III	Administrative Status of the Product
Appendix IV	Toxicological, pharmacological and clinical information
Appendix V	List of Attached Documents and Materials (this includes 20 copies of labels, package inserts and packaging materials proposed for marketing in Ghana; 10 samples of the product in its package as proposed for marketing in Ghana) ¹²³

The samples and printed matter should be sent by post or by other means and carriages. Any customs duty and clearances involved must be paid by the applicant.

The Drug Registration application, dossier and necessary samples are to be sent to: The Chief Executive of the Food and Drugs Board.

Additionally;

- ❖ The presentation of the product should not have any resemblance in spelling and pronunciation of name or packaging to another product that has been previously registered by the Board.
- ❖ For generics, evidence must be provided that the patency of the innovator has expired
- ❖ If the product is on contact manufacture, evidence of the contact must be produced and a Good Manufacturing Practice (GMP) certificate provided for the manufacturing company from the regulatory authority. This must be clearly stated on the label; for example, manufactured by A for B.
- ❖ All sample submitted should conform to the labeling regulations in force in Ghana.
- ❖ The use of International Non-Proprietary Names (INN’s) as brands is not permitted.
- ❖ Although foreign clinical data is acceptable, the Board may request for local clinical trials based upon the WHO guidelines for Good Clinical Practice (GCP) for Trials on Pharmaceutical Products, at its own discretion especially for products meant for the

¹²² Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992

¹²³ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992

treatment of tropical diseases. The cost of such clinical data is to be borne by the applicant”¹²⁴.

In considering an application, the Board may ask the applicant to supply such other information as may be required to enable it to reach a decision on the application. The application should satisfactorily justify that there is a need to have the drug registered in Ghana. In the Medium Term Health Strategy Towards Vision 2020, the government stated that unlike in the past, drug registration will not rely solely on efficacy and safety. Need, cost and the essential drugs concept will constitute major considerations¹²⁵.

The Board may consult other bodies and experts with knowledge in the drug, as part of the process of reviewing the application. The applicant is required to satisfy the Board that he has the resources and facility to executive an effective recall of the product if the need arises. If the Board is satisfied that there is the need to register the drug, it will issue to the applicant a “Certificate of Registration of a Drug” (see Annex 3), subject to such conditions as may be deemed necessary. From time to time, the Board will publish a notice in the Gazette, notifying the registration of the specific drug¹²⁶.

The form submitted for registration of drugs under these regulations must have the following documentation attached:

- i) Samples of the drug as may be prescribed
- ii) For locally manufactured drugs, the original certificate of the analysis on the drug issued by the certified public analyst.
- iii) For imported drugs, a certificate of manufacture and product issued in accordance with the WHO Certification Scheme on drugs moving in international commerce from the statutory body in charge of the country of origin.
- iv) The evidence of any special labeling claims of the character, quality and safety of the drug.
- v) The agreement from the manufacturer to register the drug in Ghana

Once an application has been submitted, it takes six weeks to three months¹²⁷ to receive a response from the FDB. If the application for registration is approved, a legislative instrument, “Certificate of Registration of a Drug” is issued by the FDB (Annex 3). An approval fee of \$100 is paid for product registration¹²⁸.

Fast Track Registration

All procured drugs must either be registered in Ghana, or the supplier must be able to provide a WHO type certificate for a pharmaceutical product moving in international commerce at the time

¹²⁴ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992.

¹²⁵ Ministry of Health, Republic of Ghana. Medium Term Health Strategy Towards Vision 2020. Accra, Revised August 1999.

¹²⁶ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992

¹²⁷ E-mail communication from Osafo, E. N. K Deputy Program Manager, Ghana National Drugs Program to Adeya, G on June 03, 2001.

¹²⁸ E-mail communication from Osafo, E. N. K Deputy Program Manager, Ghana National Drugs Program to Adeya, G on June 03, 2001.

of contract for fast track registration. Fast track registration allows the FDB to sample and test the product over one year. A clause in the contract states that the product must be able to be registered or the contract is null and void¹²⁹. A published list of registered drugs is available, entitled “Drug Register (1996-2000). First Edition, 2001” from the Food and Drugs Board, Ghana¹³⁰.

Box 2: Categories of drugs in Ghana

Prescription Only Medicines (POM)

These are drugs that can only be made available to a consumer through a written order signed by a duly qualified and registered medical practitioner and disposed by a fully registered and licensed pharmacist. They are not to be made available or sold to the general public without such a written order.

Over The Counter Medicines (OTC)

These are drugs that are generally regarded as safe for the consumer for use by following the required label directions and warnings. They may be purchased without a prescription.

The Board may at any time cancel the registration of a drug if:

- i) The grounds on which the drug was registered was later found to be false or incomplete
- ii) The circumstances under which the drug was registered no longer exists
- iii) Any of the provisions under which the drug was registered has been contravened
- iv) The standard of quality, safety and efficacy, as prescribed in the documentation for registration is not being complied with
- v) The premises in which the drug or part thereof is manufactured, assembled and stored by or on behalf of the holder of the certificate of registration are unsuitable for the manufacture, assembling or storage of the drug

If the registration of a drug is suspended or cancelled, the Board will order withdrawal of the drug from circulation and publish a suspension, cancellation or withdrawal in the Gazette.

Requirements for different drug combination products

A separate application is required for each product. Products containing the same ingredients but made to different specifications (strength or content of ingredients, dosage form, etc) or by a different manufacturer require separate applications for product registration.

Requirements for different dosage forms

Different dosage forms of products containing the same ingredient require a new application for registration.

¹²⁹ Moore, T. (SEAM). Ghana Status Report of 3-17-01. (G:\drive)

¹³⁰ Food and Drugs Board, Republic of Ghana. Food and Drugs Board: Drug Register (1996-2000). First edition, 2001

For example, if rectal artesunate (suppository) is to be introduced and if oral artesunate is already registered in Ghana, a new application will be required. The form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted. All other details that would be relevant to the finished dosage form must be included. A fee of ₵1,000,000 for a finished imported product or ₵500,000 for a locally manufactured product must be submitted with the application.

Requirements for fixed-dose combinations.

This is treated like a new drug and a new application must be made. It will undergo the same procedure as a new drug.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Ghana and a fixed-dose combination of both artesunate and amodiaquine (the two ingredients combined in the same tablet or capsule) is planned for use in the country, a new application will be required to register this fixed-dose combination. The form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted. All other details that would be relevant to the finished dosage form must be included. A fee of ₵1,000,000 for a finished imported product or ₵500,000 for a locally manufactured product must be submitted with the application.

Pre-packaged combinations.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Kenya. If one unit each of artesunate and one unit each of amodiaquine are packaged together in a blister pack:

- (a) If both of the drugs are produced by the same manufacturer and both are already registered in Ghana, there is *no need to register the pre-packaged combination*.
- (b) If the two drugs are produced by two separate manufacturers, and both are already registered separately, new registration application will be required (because of the new packaging/ presentation). The form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted. All other details that would be relevant to the finished dosage form must be included. A fee of ₵1,000,000 for a finished imported product or ₵500,000 for a locally manufactured product must be submitted with the application.

Non fixed dose combinations (co-administered combinations)

A separate registration is not required. If artesunate and amodiaquine are already registered separately and approved for use in Kenya as individual treatments, there is no need to re-register this combination even if it is intended for co-administration.

Pre-packaged fixed-dose combinations of different duration

A separate registration application is required for each dosage of different duration as it is an introduction of a new treatment regimen.

For example, Coartem® is a fixed-dose combination containing artemeter and lumefantrine. It is marketed as Coartem-4® (4 doses of 4 tablets each, for 2 days) and Coartem-6® (6 doses of 4 tablets each, for 3 days). A new drug registration application will be required and the form “Application for Registration of a Drug” and all other related requirements need to be completed. Evidence from clinical trials for that new dosage form must be submitted. All other details in the chemical section of the application that would be relevant to the finished dosage form such as standards for excipients must be included.

Renewals and Alterations to Applications

Unless otherwise revoked, the registration of a drug is valid for a period of three years and may be renewed. The renewal fee for a registration of a drug is the same as a new application (see Application Fees above).

Changing a drug schedule after registration

Requests for deregulating drugs i.e., from prescription only (POM) to over-the-counter (OTC) status¹³¹ would be submitted to the Office of the Chief Pharmacist, who would then forward the request to the relevant technical program (the Malaria Control Program) for their evaluation and recommendations. On recommendation from the technical program, the FDB would consider the request. An approval for de-scheduling would be announced and published in the Gazette. However, since the gazette has limited circulation, the FDB may after the Gazette notification, publish an announcement in the media.

Box 3: The Ghana National Drugs Policy

The goal of the Ghana National Drugs Policy (NDP) is to make essential drugs available and accessible to the population and to ensure the safety, efficacy and the quality of drugs and their rational uses by the prescribers, the dispensers and the consumers. The NDP was adopted in 1999 and has amongst its objectives:

- Streamline the registration, the selection and the importation of drugs used in Ghana;
- Improve the drug procurement, storage and distribution systems;
- Encourage and support local production of essential drugs;
- Control drug advertising and promotional activities;
- Develop, implement drug laws and regulations to strengthen the regulatory framework for drug quality assurance, management and drug use in Ghana;
- Strengthen the drug quality assurance system

Good Manufacturing Practice (GMP)

The MoH uses the WHO publication “Good Practices in the Manufacture and Quality of Drugs” as a guide is required to institute regular and thorough inspection procedures for manufacturing and quality control facilities through the FDB to ensure full implementation of the recommended practices. Ghana does not have its own GMP guidelines and although, the guidelines formally state that a GMP certificate is required prior to registration, in actual fact, none of the Ghanaian

¹³¹ Amenyah, J. Personal communication with N. Teoh, March 18, 2002.

manufacturers and many of the manufacturers outside of Ghana meet the GMP standards set by the FDB.

Inclusion of Combination Therapies in the Standard Treatment Guidelines (STG) and the Essential Drugs List (EDL)

Drugs available for public sector use are defined by the bi-annually revised Essential Drugs List (EDL) (Fourth Edition, 2000)¹³², and supported by Standard Treatment Guidelines 2000¹³³. A list of Essential Drugs with Therapeutic Guidelines was published in 1983 and has since been revised twice¹³⁴.

The Ghana Essential Drugs List is largely influenced by the WHO Essential Drugs List. Exceptions may be made in consideration of local or regional needs¹³⁵.

Inclusion in the Essential Drugs List

“The EDL which is to be revised every two years is based on the following criteria:

- ❖ evaluation of benefit, safety and quality control standards;
- ❖ the cost of treatment;
- ❖ the prevalence of disease;
- ❖ the capabilities of the health workers at the various levels of care to diagnose and prescribe”¹³⁶.

The 2000 edition was based on comments received on the 1996 Essential Drugs List collected from health professionals, based on the WHO expert panel’s criteria. The criteria are:

- ❖ drug selection should be based on the results of efficacy and safety evaluations obtained in controlled clinical trials and epidemiological studies, and on the performance in general use in a variety of medical settings;
- ❖ when several drugs are available for the same indication, only the drug and the pharmaceutical form that provides the more convenient benefit / risk ratio should be selected;
- ❖ when two or more drugs are therapeutically equivalent, the selection should fall on:
 - the drugs that has been more thoroughly investigated;
 - the drug with the most favorable pharmacokinetic properties;
 - the drug with the lowest cost, calculated on the basis of the whole course of treatment;
 - the drug with which health workers are already familiar;

¹³² Ministry of Health, Republic of Ghana. Ghana Essential Drugs List, Fourth Edition, 2000

¹³³ Ghana National Drugs Program, Ministry of Health, Republic of Ghana. Standard Treatment Guidelines 2000. September 2000.

¹³⁴ Ghana National Drugs Program, Ministry of Health, Republic of Ghana. Standard Treatment Guidelines 2000. September 2000.

¹³⁵ Amenyah, J. Personal communication with N. Teoh, March 18, 2002.

¹³⁶ Ministry of Health, Republic of Ghana. Medium Term Health Strategy Towards Vision 2020. Accra, Revised August 1999.

- the drug for which economically convenient manufacturing is available in the country;
- the drug which shows better stability at the available storage conditions.

A fixed dose combination is only accepted for inclusion on the EDL if clinical documentation justifies the concomitant use of more than one drug, and the combination provides a proven advantage over single compounds administered separately in therapeutic effect, safety, patients' compliance or cost¹³⁷.

Anyone can submit requests for inclusion or revisions of the Essential Drugs List. Requests pertaining to antimalarial drugs are referred to the technical program (the Malaria Control Program) for their evaluation and recommendations.

The Office of the Chief Pharmacist is responsible for the upkeep of Ghana's Essential Drugs List and Standard Treatment Guidelines¹³⁸.

Inclusion in the Standard Treatment Guidelines

The revision of the STG is based on published evidence or expert opinion. The final document is field-tested among all categories of health professionals. Drugs mentioned in the STG are included in the Essential Drugs List¹³⁹.

Anyone can submit requests for inclusion or revisions of the Standard Treatment Guidelines to the Office of the Chief Pharmacist. Requests pertaining to antimalarial drugs are referred to the technical program (the Malaria Control Program) for their evaluation and recommendations.

Background on the some aspects of the Ministry of Health

National Malaria Control Program (NMCP)

The NMCP was launched in 1992. Until then there was no national program¹⁴⁰. Ghana sees the principles of Roll Back Malaria (RBM) as agreeing with the overall goals of the Ministry of Health's Medium Term Health Strategy Towards Vision 2020¹⁴¹, i.e., increasing access, improving quality and efficiency in service delivery, and building partnerships in the context of overall sector-wide development¹⁴².

Ghana has committed itself to the Roll Back Malaria (RBM) Initiative, launched in September 1998. The goal of Ghana's RBM is to reduce the burden of malaria (morbidity and mortality) by

¹³⁷ Ministry of Health, Republic of Ghana. Ghana Essential Drugs List. Fourth Edition, 2000. Published by Ghana National Drugs Program, Ministry of Health, Ghana.

¹³⁸ Amenyah, J. Personal communication with N. Teoh, March 18, 2002.

¹³⁹ Ministry of Health, Republic of Ghana. Ghana Essential Drugs List. Fourth Edition, 2000. Published by Ghana National Drugs Program, Ministry of Health, Ghana.

¹⁴⁰ Netmark. Netmark Regional Africa Program Briefing Book. Insecticide treated materials in Ghana. September 2000. (www.netmarkafrica.org)

¹⁴¹ Ministry of Health, Republic of Ghana. Medium Term Health Strategy Towards Vision 2020. Accra, Revised August 1999.

¹⁴² RBM, WHO. Country Profile: Ghana (http://mosquito.who.int/docs/country_updates/ghana.htm)

50% by 2010. A component of it includes the provision of prophylaxis for pregnant women, by supplying free chloroquine to all facilities for these women¹⁴³.

Contacts

1. The Chief Executive
Food and Drugs Board
P.O. Box 2783
Cantonments-Accra
Ghana

¹⁴³ Roll Back Malaria, WHO. Country Strategies and Resource Requirements. (*WHO/CDS/RBM/2001.34*) 2001

Procurement

Procurement in the Public Sector

The Ghana National Drug Policy¹⁴⁴ states that procurement for the public sector shall take place according to the following key elements:

1. Procurement of drugs shall be restricted to items registered for use in Ghana and currently marketed in the country of origin except certain drugs for the treatment of specified tropical and some other diseases.
2. All drugs to be procured must satisfy nationally acceptable labeling requirements as enacted in the laws of Ghana.
3. Drugs shall be procured for the public sector in accordance with the National Essential Drugs List.
4. For the public sector appropriate methods (tendering, etc.) shall be adopted to procure best-priced and quality drugs.
5. Donated drugs shall conform to MoH guidelines.
6. All procured and donated drugs shall conform to national specifications.
7. At all levels, procurement practices shall also conform to the policy.

Procurement of drugs is done mainly by competitive tender in order to guarantee good quality at best prices. The following measures have been adopted to ensure value-for-money¹⁴⁵:

- ❖ Pre-qualification of manufacturers and the elimination of middlemen; following up references of bidders actively to establish their credibility; testing of samples; ensure that imported items satisfy laid down conditions in the certification scheme and pre-shipment quality control
- ❖ Evidence of good manufacturing practice (GMP).
- ❖ Local pharmaceutical production will be rationalized and supported. Quality and cost competitiveness will be the basis of selection for support.

The Procurement Unit (PU)

The Procurement Unit (PU) in the Stores, Supplies and Drug Management Division (SSDM) of the Ministry of Health is responsible for the overall management of the procurement process for the public sector. Within the PU, the Drugs Section manager handles the procurement of pharmaceuticals. The PU reports to the Director SSDM and also assists the Director SSDM in his work in the Ministry of Health's Procurement Committee. This Committee has the overall supervision of the procurement within the Ministry¹⁴⁶.

The major tasks of the Procurement Unit are to:

- ❖ Maintain and update the procurement procedures, including Standard Bidding Documents (SBDs);

¹⁴⁴ Ministry of Health, Republic of Ghana. Ghana National Drugs Policy. March, 1998.

¹⁴⁵ Ministry of Health, Republic of Ghana. Medium Term Health Strategy Towards Vision 2020. Accra, Revised August 1999.

¹⁴⁶ Ministry of Health, Republic of Ghana. Procurement Procedure Manual. Standard Operating Procedures for Procurement in the Public Health Sector. First Edition, September, 1999.

- ❖ Execute procurement on a national level, including preparation, implementation and monitoring of procurement plans; options appraisal of capital projects; preparation of bidding documents (using SBDs); launching of tenders; evaluation of tenders; facilitating logistics (e.g., clearing of goods), monitoring contracts
- ❖ Manage procurement through Procurement Agencies (including UN agencies);
- ❖ Co-ordinate emergency procurement and donations;
- ❖ Provide training and supervise procurement at Regional and District levels;
- ❖ Advise on all procurement issues;
- ❖ Make necessary preparations for the MOH Procurement Committee;
- ❖ Report to the auditor for post-procurement review; and
- ❖ Report to Director SSDM¹⁴⁷

The Procurement Committee

The Procurement Committee approves the yearly Procurement Plan and endorses every intended purchase beforehand, in or outside, the approved Procurement Plan. In addition, they are charged with the responsibility for;

- ❖ Endorsing the Tender Documents (regional level);
- ❖ Leading the Bid Opening of tenders (regional level);
- ❖ If applicable, giving instructions on negotiations; and
- ❖ Making decisions on awards /orders based on the Recommendations of Award or proposals for orders.

The Central Medical Stores (CMS)

The Central Medical Stores in the Supplies, Stores and Drug Management division (SSDM) of the Ministry of Health is responsible for the storage and distribution process for items procured for the public sector. The Ghana Essential Drugs List is used as the primary criteria through which drug products are stocked up for national requirements¹⁴⁸.

Drugs are centrally procured through the Central Medical Stores from both international and local sources. CMS is a four-level storage and distribution system: central, regional, district and sub-district.

Quantification

A bottom-up quantification system based on both consumption and morbidity (service delivery points such as health facilities) is to be set up. This will replace the current system based on consumption at the Central Medical Store, which does not reflect actual needs¹⁴⁹. Although this has been proposed, in actuality, this system has not been implemented¹⁵⁰.

¹⁴⁷ Ministry of Health, Republic of Ghana. Procurement Procedure Manual. Standard Operating Procedures for Procurement in the Public Health Sector. First Edition, September, 1999.

¹⁴⁸ Amenyah, J. Personal communication with N. Teoh, March 18, 2002

¹⁴⁹ Ministry of Health, Republic of Ghana. Medium Term Health Strategy Towards Vision 2020. Accra, Revised August 1999.

¹⁵⁰ Amenyah, J. Personal communication with N. Teoh, March 18, 2002.

In the Ministry of Health's Procurement Procedure Manual¹⁵¹, the guidelines for quantification are defined as the same at all levels. The following parameters are needed for proper quantification:

- i. Past consumption per item per year: the actual amount per item used or dispatched by the pharmacy and/or stores in the past financial year.
- ii. Estimates per year: from past consumption per item per year, the experiences with stockouts, unfulfilled requests and technical input from users, the estimates per year have to be established for each Budget Management Centre (BMC). (In case consumption data is not available, estimates will be made based on data from neighboring facilities.

The SSDM/Procurement Unit serves as the focal point in the Ministry of Health for all emergency procurement and donations. At the national level, all procurement for the public health sector has to be known to the SSDM/Procurement Unit and approved by the MoH Procurement Committee, including in emergency situations such as epidemics and donations.

Supplier Selection / Tender Management / Contract Terms

Depending on the total cost of the procurement, pharmaceuticals are procured by International Competitive Bidding (ICB) (US \$300,000 or more), National Competitive Bidding (NCB) (US \$ 50,000 – 300,000) and shopping at the National and Regional level (less than US \$50,000)¹⁵².

International Competitive Bidding (ICB) is the preferred method of public procurement at the national level. The frequency of the procurement is 2 to 4 times per year.

National Competitive Bidding (NCB) is carried out at the regional level for purchases with a higher value than US \$ 50,000.

Shopping and Direct Contracting for goods and Price Comparison for works are the methods used as the standard method at district level.

Payment terms in the public sector include payment of 90% when goods are shipped and 10% later when goods have passed customs and quality assurance. A 10% performance bond is requested for the supplier¹⁵³.

Importation of drugs into Ghana

All products to be imported into the country must first be registered with the Food and Drugs Board under sections 18 and 25 of the Food and Drugs law, 1992 (PNDCL 305B) and Section 4 (b) of the Food and Drugs (Amendment) Act, 1996, Act 523. Only authorized importers who are registered with the Food and Drugs Board are legally allowed to import pharmaceuticals. The authorized importers include registered pharmaceutical industries, wholesale and retail

¹⁵¹ Ministry of Health, Republic of Ghana. Procurement Procedure Manual. Standard Operating Procedures for Procurement in the Public Health Sector. First Edition, September 1999.

¹⁵² Ministry of Health, Republic of Ghana. Procurement Procedure Manual. Standard Operating Procedures for Procurement in the Public Health Sector. First Edition, September 1999.

¹⁵³ Moore, T. (SEAM). Ghana Status Report of 3-17-01. (G:\drive)

pharmacies. Governmental, quasi-governmental agencies, corporate bodies and NGOs that run health programs and facilities may also be permitted to import ¹⁵⁴.

The FDB is authorized by law to issue a permit for the importation of products. This import permit must be obtained prior to confirmation of an order for the importation of any product. Permits are to be used only once at the port of clearance and are valid for twelve months from the date of approval. A permit fee to be determined by the Board is charged. The permit should bear the full name of the superintendent pharmacist together with his/her registration number, date and stamp of the company as well as the name and address of the exporter and the importer, description of the product, quantity, registration number, country of manufacture/origin and total value.

To apply as an authorized importer the form, “Application for Registration as an Importer” from the FDB (see Annex 3), must be completed. For each importation (which can include several products), the form “Permit for the Importation of Food, Drugs, Cosmetics, Medical Devices and Chemicals” (Annex 3) must be completed and submitted to FDB to request for a permit to import.

Restricted drugs

Certain drugs e.g. chloroquine tablets and syrup are restricted from importation because there is enough local manufacturing of these products and purchases from the local market are encouraged.

Quality Assurance for Drug Procurement

Only drugs conforming to nationally accepted and /or internationally recognized quality standards are permitted to be procured and distributed in the country¹⁵⁵.

Box 4: National Drug Policy on Quality Assurance

The aim of the policy is to ensure that:

Drugs reaching the patient are safe, effective and meet approved specifications and standards. The quality assurance system shall include managerial, technical and legal aspects.

Upon receipt of drug supplies, relevant documentation, including certificates of analysis and pre-shipment inspection report for raw materials and finished products are carefully checked to ensure that the quality of the drug is of the required standard. Pharmaceutical industries must be able to institute product recall procedures and these are enforced through the FDB, for the withdrawal from circulation, drug products which have been shown by testing or demonstrated otherwise to be of unacceptable quality.

Certification Scheme on the Quality of Pharmaceuticals

Ghana participates in the WHO certification scheme on the quality of pharmaceutical products moving in international commerce. Most key elements of the Certification Scheme are fulfilled in the Ghana requirements for registration of pharmaceuticals. It is recommended that whenever

¹⁵⁴ Food and Drugs Board. Draft Legislative Instruments on The Food and Drugs Law (PNDCL 305B) 1992.

¹⁵⁵ Ministry of Health, Republic of Ghana. Ghana National Drugs Policy. March, 1998.`

possible, drugs are procured only from reputable suppliers and the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce be applied where appropriate, to drug products procured from outside the country. Potential bidders are required to demonstrate that their products do fulfill the WHO certification scheme before they are allowed to participate in tender process¹⁵⁶.

National Quality Control Laboratory (NQCL)

Quality testing of drugs is done by laboratories of the FDB's National Quality Control Laboratory. Quality control is required for drugs irrespective of origin prior to registration. Some quality testing of random samples of drugs already in the market and on shelves is conducted by the Pharmacy Board. In the Medium Term Health Strategy Towards Vision 2020, the government emphasized the importance of quality of drugs.

¹⁵⁶ Amenyah, J. Personal communication with N. Teoh, March 18, 2002.

Procurement in the private sector

It has been estimated that the public sector provides under 50% of the health care services. The Christian mission facilities alone provide health care to around 40% of the population, working especially in the rural deprived areas¹⁵⁷. The mission and NGO facilities purchase drugs from a variety of sources. They can access the CMS and RMS, as well as the many private manufacturers and wholesalers, especially in Accra. In addition, the CHAG (Christian Health Association of Ghana) and Catholic institutions also have their own drug warehouses (Catholic Drug Services) where they sell drugs. According to some of its members, CHAG stocks mostly drugs manufactured locally. The Catholic hospitals buy predominantly from the Catholic Drug Services, stocking mostly imported drugs¹⁵⁸.

Procurement in the private-for-profit sector is done on an individual basis. There are several importers and wholesalers in Ghana. Importers import medicinal products from foreign countries and either act as wholesalers or they may supply other wholesalers. Often the importers hold agencies and distribution rights for multinational manufacturing companies. Wholesalers may procure locally from manufacturers and importers and supply to the private distribution chain, which may include hospitals, pharmacies, drugstores, shops and supermarkets. In the private sector procurement tends to be in much smaller quantities, and the tendency is more to negotiate prices with pre-qualified suppliers (rather than doing open tenders).

¹⁵⁷ SEAM Report. Report Section on NGO/Missions. (MSH Internal Document. See G:\ drive)

¹⁵⁸ SEAM Report. Report Section on NGO/Missions. (MSH Internal Document. See G:\ drive)

SUMMARY:

The Food and Drugs Board (FDB), part of the Ministry of Health, is responsible for ensuring the safety and quality, and of registering all pharmaceutical products used in Ghana. It was established as a result of the Food and Drugs Law (Est. 1992).

The process for registering a drug requires a completed “Application for Registration of a Drug” form in duplicate. This is submitted to the Chief Executive of the FDB together with information on

- General product specifications
- Manufacturing procedures and related controls
- Administrative status of the product
- Toxicological, pharmacological, and clinical information
- 20 copies of labels, package inserts and packaging materials for marketing in Ghana
- 10 samples of the product.
- A processing fee of about \$15

Other information that may be required includes a GMP certificate, and evidence that the patency of the innovator has expired for generics.

Drug registration is not based only on efficacy and safety, but also on need, cost and on whether or not it is an essential drug. Approval for a complete application package takes six weeks to three months and an approval fee of \$ 100 is paid for product registration. A published list of registered drugs is available from the FDB.

Separate applications are required for different dosage forms of the same product; fixed dose combinations; pre-packaged combinations of products produced by different manufacturers. No new application is required for a pre-packaged combination of products produced by the same manufacturer provided that each product is already registered, and for co-administered combinations.

The registration is valid for three years and may be renewed. To change the schedule of a drug after registration, an application should be submitted to the Chief Pharmacist, who forwards it for review to the relevant technical program, and from the program a recommendation is forwarded to the FDB. An approval of the rescheduling is published in the Gazette and may also be announced in the media.

Drugs available for Public sector use are defined every two years in the Essential Drugs List and supported in the Standard Treatment Guidelines. This EDL is largely influenced by the WHO EDL. Drugs are included in the EDL on the basis of their efficacy, safety, cost, needs and capabilities of the health workers at all levels to diagnose and prescribe.

The Procurement Unit (PU) of the Ministry of Health is responsible for the overall management of the public sector procurement. Public sector procurement occurs in accordance with the EDL and is limited to drugs registered for use in Ghana that conform to national specifications, and is done using methods such as tendering that ensure that the best-quality and best-priced drugs are obtained. Storage and distribution is the responsibility of the Central medical stores. Private

sector importers must be registered with the FDB to be legally allowed to import pharmaceuticals. An import permit must also be obtained from the FDB before a product is imported. This permit is valid for twelve months from the date of approval and is used at the port of clearance.

Antimalarials in Ghana¹⁵⁹

	Drug /Dosage Form	Generics Register		Speciality Register ¹⁶⁰	
		Registered	Class	Registered	Class
1	Chloroquine tab	Y	OTC		
	Avloclor® tab			Y (1996)	POM
	Fastaguine® tab			Y (1998)	OTC
	Nivaquine® tab			Y (1999)	OTC
	Ollaquine® tab			Y (1996)	OTC
	Chloroquine syr	Y	OTC		
	Babyquin® syr,			Y (1999)	OTC
	Plasmoquin® syr			Y (2000)	OTC
	Danarex® syr			Y (1998)	OTC
	Letaquine® syr			Y (1997)	OTC
	Mmofra Cholorquine syr			Y (1996)	OTC
	Chloroquine inj	Y	POM		
	Chlorointa® inj			Y (1999)	POM
	Quinross® inj			Y (1997)	POM
2	Amodiaquine tab (Letap Pharm, Accra & Mercury Labs, India)	Y(2000)	OTC		
	Amodiaquine tab (Umedica Labs, Mumbai India)	Y (1997)	POM		
	Amodiaquine syr	Y (1998)	POM		
	Malarid® susp			Y (1998)	OTC
	Malarid® tab			Y (1998)	OTC
	Amoquin® susp			Y (2000)	OTC
	Amoquin® tab			Y (1998)	OTC
	Amodin® susp			Y (1999)	POM
	Kamoc® syr			Y (1998)	POM
	Kamoc® tab			Y (1998)	POM
3	SP tab (London United Exports Ltd, UK)	Y (1997)	P		
	Malacol®, Maladoxine®, Combimal® tab			Y (1998,99)	POM

¹⁵⁹ Information based on FDB “Drug Register (1996-2000)”

¹⁶⁰ Branded

	Maladox®, Malafan®, Malareich®, Malostat®, Pyradox®, Pyramin® tab			Y (98, 96, 98,97,99,98)	OTC
	Fansidar® tab			Y	POM
	Fansidar® inj			Y	POM
	Amalar® tab			Y (2000)	OTC
	Sesider® tab			Y (1997)	OTC

	Drug /Dosage Form	Generics Register		Speciality Register ¹⁶¹	
		Registered	Class	Registered	Class
4	Quinine tab	N	-		
	Quinine inj	Y	POM		
	Quinimax® (quinine w/ cinchonine) tab			Y	POM
	Quinimax® inj			Y	POM
5	Artemisinin tab	N	-		
	Artenam® tab (mistake in FDB Book? Prob. Artemether)			Y?	POM?
6	Artemether tab (Kunming Pharm, China)	Y (1999)	POM		
	Artemether inj (Dafra Pharma, Belgium)			Y (1999)	POM
	Artenam® tab			Y (1999)	POM
	Artenam® inj, pedi inj			Y(1999)	POM
	Paluther® inj			Y (1997)	POM
7	Artesunate tab	N	-		
	Artesunate® tab			Y	POM
	Artesunate inj	N	-		
	Artesunate® inj			Y	POM
	Artesunate syr	N	-		
	Artesunate supp	N	-		
	Plasmotrim® tab			Y (1999)	POM

¹⁶¹ Branded

	Plasmotrim ® rectocap			Y (1990)	POM
8	Dihydroartemisinin	N	-		
9	Coartem® (not specified as 4 or 6)		POM	Y	POM
10	Tetracycline caps	Y	POM		
11	Doxycycline caps	Y	POM		
12	Azithromycin tab, cap, syr (Azee®)			Y	POM
13	Proguanil tab (Paludrine®)			Y(1996)	OTC
14	Halofantrine tab	N	-		
	Halfan® tab			Y (1996)	POM
	Halofantrine syr	N	-		
	Halfan®syr			Y (1996)	POM

Although SP is classified as a POM, patients can obtain the drug from a pharmacy as pharmacists are authorized to prescribe and dispense for “simple Diseases of Common Occurrence” such as malaria.

ANNEXES

1. Application for Registration of a Drug form
2. Fee Schedule
3. Certificate of Registration of a Drug (Sample)
4. Application for Registration as an Importer form
5. Permit for the Importation of Food, Drugs, Cosmetics, Medical Devices and Chemicals form
6. Contacts in Ghana

Chapter Four Senegal

Acronyms

AFRO	WHO's Africa Regional Office
CFA	"Communauté Française d'Afrique"
CT	Combination Therapy
DCI	"Denomination Commune Internationale"
DPHL	"La Direction de la Pharmacie et des Laboratoires"
DPM	"Direction de la Pharmacie et Medicaments"
FCFA	
LNCM	"Laboratoire National de Contrôle des Médicaments"
MSH	Management Sciences for Health
NMCP	National Malaria Control Program
OMS	"Organisation Mondiale de la Santé"
PNA	"Pharmacie Nationale d'Approvisionnement"
PNLP	"Programme National de Lutte contre le Paludisme" (NMCP in English)
PRA	"Pharmaceuties Regionales d'Approvisionnement"
RBM	Roll Back Malaria
SP	sulfadoxine/pyrimethamine
USAID	United States Agency for International Development
WHO	World Health Organization

Introduction

In Senegal malaria accounts for 35% of all outpatient attendances and is the most common cause of morbidity and mortality. Approximately 7-10,000 deaths occur each year due to malaria¹⁶².

The first line treatment in Senegal continues to be chloroquine with amodiaquine as first line for patients who cannot take chloroquine. Sulfadoxine-pyrimethamine (SP) is the second-line treatment. Quinine is recommended for the treatment of severe malaria. Recently, clinical failure rates of 17% have been recorded for chloroquine in Dakar and over 25% in Kaolack with average parasitological failure rates of 50%. SP clinical failures of between 3 to 7% have been found.

In the south of Senegal, evaluation studies for combination therapy are being carried out. Two combinations are being investigated, artesunate/mefloquine and Coartem® (artemether/lumefantrine). Many discussions and debates have taken place at the Ministry of Health and within the NMCP on the rationale and need to use CT. The malaria advisory committee accepted CT as a future alternative to malaria therapy. However, chloroquine is still considered to be effective and thus the need to change to CT is not perceived to be immediate. However, emphasis is placed on monitoring of potential resistance to existing drugs¹⁶³. Currently, combination therapy (CT) is only available in private pharmacies and the only one licensed in Senegal is artemether /lumefantrine (Coartem®)¹⁶⁴.

¹⁶² Shretta, R. Malaria Consortium. How the Roll Back Malaria partnership can promote universal access to effective antimalarial drugs: examples of antimalarial drug policy and drug management systems from Malawi, Kenya, Cambodia and Senegal. A background paper for the Fourth RBM Global Partners Meeting 18-19 April 2001, Washington DC. Malaria Consortium, April 2001. Draft Working Paper for Discussion 13 April 2001. Commissioned by the RBM Cabinet Project.

¹⁶³ Shretta, R. Malaria Consortium. How the Roll Back Malaria partnership can promote universal access to effective antimalarial drugs: examples of antimalarial drug policy and drug management systems from Malawi, Kenya, Cambodia and Senegal. A background paper for the Fourth RBM Global Partners Meeting 18-19 April 2001, Washington DC. Malaria Consortium, April 2001. Draft Working Paper for Discussion 13 April 2001. Commissioned by the RBM Cabinet Project.

¹⁶⁴ Shretta, R. Malaria Consortium. How the Roll Back Malaria partnership can promote universal access to effective antimalarial drugs: examples of antimalarial drug policy and drug management systems from Malawi, Kenya, Cambodia and Senegal. A background paper for the Fourth RBM Global Partners Meeting 18-19 April 2001, Washington DC. Malaria Consortium, April 2001. Draft Working Paper for Discussion 13 April 2001. Commissioned by the RBM Cabinet Project.

Legal Processes and requirements

Drug Registration

Registration of drug products requires that the manufacturer or importer submit an application for a “visa” or an AMM (autorisation de mise en marché) to the DPM. This application should contain the name of the company, a complete description of the product, a sample of the product and a registration fee.

The original basis of the legislation governing registration of pharmaceuticals dates back to 1954. The law that governs preparation, sales and publicity of pharmaceuticals under law no. 65-33 of 19 May 1965: “Ordre National des Pharmaciens”; Recueil de textes, de base régissant la pharmacie au Sénégal. The regulatory body tasked with all matters relating to pharmacy practice and medicine is the Direction de Pharmacie et des Médicaments (DPM), which falls under the Ministry of Health.

There is no central list of all drugs registered at the DPM. It is difficult to determine which drugs have a visa or the date of the visa without looking into the drug dossier (arranged by manufacturer in brand name).

The Drug Regulatory Authority

The legislative and regulatory pharmaceutical body of the Ministry of Health is the “Direction de la Pharmacie et Médicaments” (DPM).

“La Direction de la Pharmacie et Médicaments” (DPM)

The “*Direction des Pharmacies et Médicaments*” (DPM) is the department of the Ministry of health that administers and regulates the pharmaceutical sector. The DPM implements regulations and laws to guarantee the quality, safety, and efficacy of all pharmaceutical and medical products produced or imported into Senegal in accordance with the national drug policy, which does not exist as a formal document. Its responsibilities include authorising drug products for the private market (drug registration), registering private pharmacies and depots, inspection of pharmacies and control of prices of drugs in the private sector and general inspectorate functions.

Within the Direction de Pharmacie et Médicaments (DPM), there are 4 divisions:

- ❖ Division de réglementation (includes the visa section)
- ❖ Division de administration (for registration of premises)
- ❖ Division de stupefiants et psychotropes
- ❖ Division de laboratoire (responsible for sampling)

The Division de réglementation is responsible for the registration of imported medicaments and as well, products of Senegal.

DPM has six (as well as two others in training) inspectors who enforce the regulation and identify the drugs circulating without registration¹⁶⁵. The framework of drug regulations inherited from France is antiquated and difficult to apply¹⁶⁶.

New Registrations

All companies wishing to make requests for drug registration certification for a pharmaceutical product must submit a complete dossier in duplicate containing the following:

1. The name and address of the company / manufacturer making the request;
2. A complete description of the product (name of the patented drug, generic name, the contents, the active ingredient(s), the recommended dosage, the form, the pack size, the posology, the shelf-life, the indications, contra-indications, the route of administration, the excipients, the cost-price from the manufacturer and the wholesale price and any other information relating to its use.
3. Product samples (discussed in detail under 'other information required') together with the packaging, which is sent to the quality control laboratory. Enough sample must be supplied for five full quality analyses
4. Registration tax of 250,000 FCFA¹⁶⁷.

The application may be made in French or in English. It should be noted that not all drugs are systematically quality controlled¹⁶⁸.

No form exists for the actual application for a "visa". The manufacturer simply sends a letter requesting the visa with all the necessary documents. The application should be addressed to the Minister of Health under the stamp of DPM. The dossier is given a reference number by the DPM, which should be quoted in subsequent correspondence.

The registration applications are considered by a commission of experts, mostly professors of medicine and pharmacy. One expert in the appropriate field reviews a visa application and presents it to the commission and a decision is made. An application for registration of a drug is easily approved and rarely refused. A certificate of registration, an "arrêté", is issued on approval of the application and once the visa is granted (Annex 4.). This is valid for a period of 5 years¹⁶⁹.

¹⁶⁵ Shretta-Chag, R. and Briggs, C.J. Report of RPM Plus Participants in the USAID "Malaria Plus up" Meeting and Discussion of Opportunities for RPM Plus in Malaria and Child Survival Activities in Senegal. June 26-29, 2001. RPM Plus, CPM, MSH.

¹⁶⁶ Ministère de la Santé Publique, République du Sénégal / Syndicat National de l'Industrie Pharmaceutique. Etude sur l'accessibilité au médicament (SEAM Report). Rapport définitif, juillet 2001.

¹⁶⁷ République du Sénégal, Ministère de la Santé et la Prévention, Direction de la Pharmacie et du Médicament. Circulaire. Objet: Demande de visa de médicaments (spécialités pharmaceutiques et génériques).

¹⁶⁸ Guimier, JM & Candau D (2001), Syndicat National de l'Industrie Pharmaceutique. L'étude sur l'accessibilité du médicament. Rapport Définitif pour la Ministère de la Santé Publique, République du Sénégal.

¹⁶⁹ Ickx, P., Morsly, R., Simonet, M., Watt, R., and Sallet, J-P. Rapport Préliminaire (pour discussion). Réforme de la Pharmacie Nationale d'Approvisionnement du Sénégal. Etude. Ministère de la Santé & Management Sciences for Health, 1995.

Many drugs imported by PNA supplied by IDA (Amsterdam) have not received registration and certification from DPM. Given that the drug registration is weakly constructed, it is very likely that there are many products on the Senegalese market that are not registered.

Application fees

The application fee for all new registrations (“visas”) is 250,000 FCFA for branded generic products manufactured outside of Senegal, 200,000 FCFA for branded and generic products manufactured within Senegal. This is to be sent to the Public Treasurer. The fee for renewals of registration for all products is 125,000 FCFA.

Who May Apply for Registration

The application to register a drug should be made by the manufacturer. A foreign manufacturer may be represented in Senegal an authorized agent.

Other Information Required for Registration

In addition the following information must be submitted in duplicate:

- i) For all imported drugs an official registration certificate (“visa”) from the country of origin
- ii) A pharmaceutical dossier containing the method of manufacturing and quality control procedures of the raw materials and finished product
- iii) Reports from independent experts in:
 - a. Analysis
 - b. Pharmacology
 - c. Toxicology
 - d. Clinical
- iv) When the application is for a generic product, the manufacturer may be required to provide clinical, pharmacological and toxicological information.
- v) An expert analytical report and bioequivalence study.

There are no minimum standards set for the clinical trial information required. It would appear that whatever is deemed good enough for the country that is exporting, is good enough for Senegal, as long as it is being consumed in that country of export and not just produced for export.

Samples required

- i) Twenty-five samples of the retail pack of the branded or generic product in the packaging that is being sold in the country of origin
- ii) Ten samples in the packaging that will be supplied to hospitals

The 25 samples provided by the manufacturer to DPM with the visa application are intended to go through Quality Control in the Laboratoire Nationale de Controle de medicaments (LNCM). In practice, they are not tested.

Box 2: Categories of drugs in Senegal

Drugs are divided into three groups:

A: Poisonous drugs to be issued only on prescription and not repeatable unless stated on the prescription for example, antibiotics, psychotropics, halofantrine and SP. Packages in this class are marked with a red single-lined box. A margin of 40 CFA is added on to the selling price at pharmacy level.

B: Controlled drugs/drugs of abuse for example, morphine. Drugs can only be purchased by pharmacies from the PNA with authorization from DPM. The quantity of the prescription should be written in words and be for no more than a month. The prescription is never repeatable. Packaging for drugs in this class is marked with a red double-lined box.

C: Toxic drugs issued on a prescription, but a single prescription can be repeatable without stating on the prescription for example, antihypertensives, amodiaquine and insulin. Packaging for drugs in this class are marked with a green lined box. A margin of 30 CFA margin is added to the selling price.

“Hors Classe” (outside of class) or “simple”: These can be obtained without prescription, but under supervision of a pharmacist for example, chloroquine, aspirin and paracetamol.

The category of the drug is dependent to a large extent on classification in the country of origin. When the application is made for a visa, the manufacturer requests a certain class which is considered by the DPM. Sometimes drugs are classed based on the price margin to be added rather than according to toxicity for example, insulin is in class C.

According to the law, a pharmacist must supervise sales of all drugs regardless of class and whether a prescription is needed. In practice, this does not happen.

Generics

There is a slightly different process for generics. A generic application is simpler as only reports on analytical testing and bio-equivalence are required. The tests from the country of production are usually sufficient and no criteria are stipulated by Senegal. However, this is a problem for locally manufactured generics as bio-equivalence studies are costly.

There is no different classification of groups for generics and branded generics.

Requirements for different drug combination products

A separate application, “visa” is required for each new combination product. Products containing the same ingredients but made to different specifications (strength or content of ingredients, dosage form, etc) or by a different manufacturer require separate applications for product registration.

Different dosage forms

Different dosage forms of products containing the same ingredient require a new application for registration to the DPM.

For example, if a rectal artesunate suppository is to be introduced and if oral artesunate is already registered in Senegal, a new application will be required. The dossier must include the same information that is required for a new drug. Evidence from clinical trials and a fee of 50,000 FCFA must be submitted.

Fixed-dose combinations

This is treated like a new drug and a new application must be made. It will undergo the same procedure as a new drug.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Senegal and a fixed-dose combination of both artesunate and amodiaquine (both ingredients combined in the same tablet or capsule) is planned for use in the country, separate application must be made. The dossier must include the same information that is required for a new drug. Evidence from clinical trials and a fee of 50,000 FCFA must be submitted.

Pre-packaged combinations

A separate registration application would probably be required, however, this was unclear.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Senegal, and a pre-packaged product was made using the same ingredients, but a different brand name, it would be registered as a new product requiring all the necessary documents. The exact documentation required was unclear as there were no current examples of pre-packaged products and there had been no discussions on the processes for such a product.

Non-fixed dose combinations (co-administered combinations)

If both individual antimalarials are already registered in Senegal, a co-administered combination does not require a new registration.

For example, if artesunate and amodiaquine are already registered separately and approved for use in Senegal as individual treatments, to co-administered this combination as in separate packages (not pre-packaged), there is no need to re-register the combination.

Prepackaged fixed-dose combinations of different duration

For a change in the treatment regimen, a notice must be filed to the Registrar of the Pharmacy Board in the form of a letter, together with evidence substantiating the value of the changed duration. A separate application for registration need not be made. A fee of 50,000 FCFA is required.

If the two pack sizes are applied for at the same time, one fee is required as well as all the necessary documents. If a later application is made then, a second fee is paid but no documents are necessary. A price study on the new pack will be carried out by DPM. The process is the same, if the first pack size is to be withdrawn and to be replaced by the second one.

For example, Coartem® is a fixed-dose combination containing artemeter and lumefantrine. It is marketed as Coartem-4® (4 does of 4 tablets each, for 2 days) and Coartem-6® (6 doses of 4 tablets each, for 3 days). If Coartem®-4 is registered in Senegal and the manufacturer wishes to replace this with Coartem®-6, he must submit a letter outlining the reasons for the change with a second fee for registration.

Changes in packaging

Packaging changes such as, the colour or design of box, require no application, documentation, or fee. A letter of notification is required and a sample of the new packaging must be submitted.

“Bonne Pratique de Fabrication (BPF)”

Good Manufacturing Practice (GMP)

Senegal does not have its own GMP guidelines, however the MoH uses the WHO publication “Good Practices in the Manufacture and Quality of Drugs” as a guide is required to institute regular and thorough inspection procedures for manufacturing and quality control facilities. The DPM expects manufacturers to follow GMP and expects a WHO certificate on application for a “visa” as proof that the structure has been inspected, assurance that GMP has been followed and that the product is registered in the country of origin. However, GMP for local or imported products is not enforced by the DPM.

Changing a drug schedule after registration

In order to make a new recommendation accessible to the population, it may be necessary to change the level of facility from which it should be available, for example, changing from a POM to an OTC medicine.

It is unclear how deregulation of a product occurs in Senegal. It is a process that has not been considered yet and no guidelines, written or otherwise, exist.

Standard Treatment Guidelines and the Essential Drugs List

Essential Drugs List (EDL)

The first Essential drugs list was issued in 1990 and most recent edition was published in 2001. The essential drugs list and the standard treatment guidelines of Senegal are issued, in theory,

every two years by the DPM, after collaborative development by a commission. The EDL varies by level of the health pyramid (regional hospital, health center, health post and health hut.

The “L’Arrete No. 011782/MSPAS/DPH “ (decree) announcement of 29 October 1990 established the list of essential medicines and products (ME/PE) for each type of health facility (e.g., Centre, Poste, Case. The “L’Arrete No. 007137/MSAS/DPH” (decree) of 23 August 1994 ‘handed over’ the execution of the decree to the Director of the Pharmacy, the Director of Hygiene and Public Health, and the Chief of PNA.

It is estimated that the total market for essential drugs through the public and private sector combined is CFA 15 million per year¹⁷⁰.

Inclusion of new drugs on the EDL

There is a commission organized by the DPM, consisting of representatives of the DPM, health, centers, districts, regions and hospitals, who meet to discuss new inclusions, every two years. The person proposing the inclusion must be prepared with argumentation and documentation covering selection criteria such as cost, effectiveness etc. to justify the inclusion. No minimum amount of information is required and there are no guidelines to what information has to be presented. Anything proposed by a “program” is automatically accepted and anything that has the Minister of Health’s backing, regardless of evidence or justification of “specialists” is discussed in a round table discussion and the Director of the DPM makes the final decision. The commission includes doctors, nurses, pharmacists and members of the PNA.

The essential drugs list is revised in response to requests from doctors, which are then considered by the commission. The decision of whether to include drugs on the list seems to be made on the basis of demand and needs. No study of cost-effectiveness or other evidence is sought.

Modification of the List is limited to 5 products each year and the additions must already be listed in WHO’s Essential Drug List. The Essential Medicines and Products list is often mentioned without dosage form or dosage specifications. Inclusion of new drugs on the EDL is done through a review committee headed by DPM with representatives of Regional Medical Officers, hospital doctors, nurses, pharmacists and members of the PNA.

Standard Treatment Guidelines

Senegal has a set of Standard Treatment Guidelines for selected diseases and this is linked to the EDL.

The Division of Primary Health Care (Divisions des Soins de Santé Primaire) in collaboration with UNICEF, has developed some treatment protocols (“ordinogrammes”) for use at the health posts, “poste de santé”, as a way to ensure as correct a diagnosis and appropriate a treatment as possible. To date these “ordinogrammes” have been limited to the “poste de santé” level and there are no standard treatment guidelines for centres de santé or hospitals.

¹⁷⁰ Shretta-Chag, R. and Briggs, C.J. Report of RPM Plus Participants in the USAID “Malaria Plus up” Meeting and Discussion of Opportunities for RPM Plus in Malaria and Child Survival Activities in Senegal. June 26-29, 2001. RPM Plus, CPM, MSH.

Inclusion of Drugs into the “Ordinogrammes”

The commission is headed by the “Division de Soins de Santé Primaire” and the process for inclusion of new drugs on the “ordinogrammes” is the same as the process for revising the EDL.

In theory the ordinogrammes are based on the EDL, program guidelines and the WHO directives for certain conditions. In practice there is likely to be differences as the two are updated separately. EDL is under DPM and ordinogrammes under Direction de la Santé. If program recommendations change in between versions of the “ordinogrammes”, the program disseminates that information.

Background on Senegal Health Care Infrastructure

The Ministry of Health is assisted by five directorates; Directorate of Health, General Administration, Management and Equipment, Pharmacy and Drugs, Health Institutions, Evaluation, Research and Training¹⁷¹ (“Direction Santé”, “Direction de l’Administration Generale et de l’Equipement”, “Direction Pharmacie et Medicaments”, “Direction Action Sociale” and “Direction de la Recherche, de la Planification, et de la Formation”)¹⁷².

The National Malaria Control Program (NMCP), the National Pharmacy of Essential Drug Supply (NPS) and the National Directorate of Pharmacy are at this central level¹⁷³. The health system has a pyramidal structure with three levels; health districts or operational zones (50), medical regions (10) and the central health level¹⁷⁴.

“La Programme National de Lutte contre le Paludisme” (PNLP) The National Malaria Control Program

In 1995 the National Malaria Control Program (PNLP) was established. Senegal was among the 21 countries that benefited from the Accelerated Implementation of Malaria Control Initiative of AFRO¹⁷⁵. Senegal organized the first consensus meeting to adopt the RBM strategy in July 1999.

¹⁷¹ Shretta, R. Malaria Consortium. How the Roll Back Malaria partnership can promote universal access to effective antimalarial drugs: examples of antimalarial drug policy and drug management systems from Malawi, Kenya, Cambodia and Senegal. A background paper for the Fourth RBM Global Partners Meeting 18-19 April 2001, Washington DC. Malaria Consortium, April 2001. Draft Working Paper for Discussion

¹⁷² World Bank. Staff Appraisal Report. Republic of Senegal. Integrated Health Sector Development Program. Report No. 16756-SE. World Bank, Human Development 2, Africa Region, August 8, 1997.

¹⁷³ Shretta, R. Malaria Consortium. How the Roll Back Malaria partnership can promote universal access to effective antimalarial drugs: examples of antimalarial drug policy and drug management systems from Malawi, Kenya, Cambodia and Senegal. A background paper for the Fourth RBM Global Partners Meeting 18-19 April 2001, Washington DC. Malaria Consortium, April 2001. Draft Working Paper for Discussion 13 April 2001. Commissioned by the RBM Cabinet Project.

¹⁷⁴ Shretta, R. Malaria Consortium. How the Roll Back Malaria partnership can promote universal access to effective antimalarial drugs: examples of antimalarial drug policy and drug management systems from Malawi, Kenya, Cambodia and Senegal. A background paper for the Fourth RBM Global Partners Meeting 18-19 April 2001, Washington DC. Malaria Consortium, April 2001. Draft Working Paper for Discussion 13 April 2001. Commissioned by the RBM Cabinet Project.

¹⁷⁵ RBM website. Country Profile. Senegal. <http://mosquito.who.int>

A number of RBM actions have taken place including the development of a strategic plan of RBM with consensus among partners^{176 177}.

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¹⁷⁶ RBM website. Country Profile. Senegal. <http://mosquito.who.int>

¹⁷⁷ Service National des Grandes Endémies, Ministère de la Santé, République du Sénégal. Plan Stratégique pour faire reculer le paludisme au Sénégal 2001-2005. Janvier 2001.

Procurement

The majority of drugs in Senegal are imported (85-90%). Importation is primarily from France and is carried out by both public and private importers. Imported products are taxed twice (a 6% tax is added to the CIF price tax and a further 1.5% is added for local transport), but are exempted from customs and VAT.

“Pharmacie Nationale d’Approvisionnement” (PNA)

Procurement and distribution of drugs in the public sector is conducted through the Pharmacie Nationale d’Approvisionnement (PNA), which has been recently reformed to be independent financially. The majority (80-90%) of drugs required are purchased through international tender, although in 1994 only 46% of the value of drugs obtained were through international open tender. National (Senegalese) local industries have 15% acceptability advantage on their suggested prices compared to other foreign bidders. Regional (African) industries have a 10% comparative advantage over non-African industries.

Procurement is done every two years according to the essential drugs list. If an increased quantity of an item on the tender is needed during the two-year period, the supplier can supply up to a maximum of a 50% increase at the tender price. In general, 80-90% of the needs are provided for through the tender. The tender is an open tender (including national and international suppliers). Suppliers have to provide a technical and administrative file for the drug they want to sell, products must have drug registration certification to sell the product in their own country. If a reasonably large quantity of drugs is required during the two years, in between open tenders, a closed tender is carried out inviting 20-30 pre-selected suppliers¹⁷⁸.

Delivery of drugs after the tender takes approximately six months. Recently in order to improve the quality of drugs, the PNA has centred its purchases on European countries, which in 1999 represented 75% of the sources of drugs.

¹⁷⁸ Shretta-Chag, R. and Briggs, C.J. Report of RPM Plus Participants in the USAID “Malaria Plus up” Meeting and Discussion of Opportunities for RPM Plus in Malaria and Child Survival Activities in Senegal. June 26-29, 2001. RPM Plus, CPM, MSH.

Box 3: The public sector supply system

The public supply system is pyramidal in nature. It has decentralized structures at regional level (regional pharmacies), which supplies regional public hospitals, district healthstores; and at district levels. The district pharmacy supplies health centers, health posts and health huts. The PNA used to supply drug kits but this has recently been replaced by a 'pull system'. Each health structure places its drug purchase order base on its needs and budget. Drugs in this distribution system are primarily generic drugs that are on the national Essential Drugs List. As well as providing the drugs for the public sector, the PNA also supplies drugs to the army and police hospitals as well as to NGOs and church institutions on authorization from the DPM. The levels are fixed for the margins added on the price of drugs in the public system, Drugs can only be purchased from the public sector with a prescription.

The PNA accounts for about 60% of the total volume of the market for pharmaceuticals in Senegal. The possibility of PNA providing drugs to the private sector is being investigated at present.

Quantification

The quantities to procure are calculated on the basis of figures from the previous three years of sales. In addition, the hospitals predict their requirements, and allowances are made for stock outs and slow moving items. No data on consumption from the district stores or health facilities is used or available at central level. There is little information in existence at these levels as there has been a general data strike for five years, such that no information has been recorded at health facility level.

“Laboratoire National de Contrôle des Médicaments” (LNCM)**The Drug Quality Control Laboratory**

DPM is in charge of controlling the quality of imported drugs. Drugs are tested for quality at the Laboratoire Nationale de Contrôle des Médicaments (LNCM), which is not yet fully functional. The LNCM is a separate institution attached directly to the cabinet and not to DPM. The LNCM reports directly to the Ministry of Health although the DPM is the drug control body. DPM pharmacists carry out the sampling of drugs from the PNA then give the samples to the LNCM for testing. Before procurement, the DPM receives samples from potential suppliers and the LNCM provides an analysis. If all conditions are satisfactory the drug is introduced to the country. Every new lot received is supposed to go through a sampling from DPM and analysis by the LNCM to assure quality. This is a new structure and is not yet operational.

The WHO certification scheme

The WHO certification is accepted as proof of technical and administrative quality control. The PNA is a member of the “Association de Central d'Achats” (an association of CMS) in the region, a network of central medical stores that shares information on poor quality drugs and suppliers among countries. The Association meets once a year and is working on harmonization of their registration procedures.

Procurement in the private sector

Distribution of drugs in the private sector is through three wholesalers (Laborex, Cophase and Sodipharm) who provide drugs to a nationwide network of 532 pharmacies (officines de pharmacie privés) that function both as retail outlets and suppliers to private enterprises (e.g.

clinics)¹⁷⁹ and about 100 pharmacy depots or small-scale wholesalers (depots pharmaceutiques privés), of which 60% are located in Dakar. Most private pharmacies are in urban settings. There are as many as 2500 products supplied by these wholesalers to the private sector¹⁸⁰.

The private sector represents 85% of the value of the sale of drugs in Senegal. The prices in the private sector are controlled such that a drug is sold at the same price throughout the whole country. No pharmacy can alter the selling prices as they are marked on the packaging of the drugs container. The prices in the private sector outlets are often higher than the public sector.

There are three manufacturers in Senegal; one is local, Sipoa, and two international, Aventis and Park Davis. Sipoa sells most of its products to the Senegalese market and Park Davis sells only up to 40% of its production on the local Senegalese market and exports the remainder. Of the products manufactured locally, generic products under generic name account for only 5% of their business. Total local production only represents about 10% of the products on the private sector.

A third important sector exists in Senegal for the supply and distribution of drugs. This is the illicit sector and consists of the traditional sector, mobile sellers and the Touba sector, which is a very organised parallel system offering wholesaler and retail drug outlet services. The prices in this sector tend to up to 30% lower than the private sector.

¹⁷⁹ Shretta-Chag, R. and Briggs, C.J. Report of RPM Plus Participants in the USAID “Malaria Plus up” Meeting and Discussion of Opportunities for RPM Plus in Malaria and Child Survival Activities in Senegal. June 26-29, 2001. RPM Plus, CPM, MSH.

¹⁸⁰ Diallo, Ndiouga. La politique pharmaceutique du Sénégal. (Internal MSH document, January 2002).

SUMMARY:

The Direction de la Pharmacie et Médicaments (DPM), a part of the Ministry of health, is the regulatory body responsible for registering all drug products manufactured or used in Senegal. The Division de Réglementation, a division of the DPM works to ensure the quality, safety, and efficacy of the drugs produced or imported into Senegal.

An application for an autorisation de mise on marche (AMM) or a drug visa may be made in French or English. The complete application dossier includes

- A cover letter to the Ministry of Health requesting the visa
- The name and address of the company/manufacturer making the request
- A complete description of the product – including information on its active ingredients, pharmaceutical properties, and price
- Product samples in the retail pack (enough of the sample for five full quality analysis)
- Registration tax
- Official registration certificate from the country of origin for imported drugs
- Reports from independent experts on the pharmaceutical properties of the drug
- Expert analytical report and bioequivalence study

The drug manufacturer, or his agent, makes the registration applications. The completed applications are reviewed by a commission consisting mainly of professors of medicine and pharmacy. Most registration applications are readily approved and the visa issued. Once issued, it is valid for five years.

New applications are required for each new drug combination product: different dosage forms of products containing the same ingredient, fixed dose combinations, and pre-packaged combinations. Non-fixed dose combinations do not require a new application provided that the individual products in the combination have been registered. No guidelines as yet exist for changing a drug schedule after registration.

The most recent EDL and STG was published in 2001. A commission consisting of doctors, nurses, pharmacists and members of the PNA, which is organized by the DPM, meets every two years to discuss new inclusions to the EDL. The Director of the DPM makes the final decision.

The STG, treatment protocols developed by the Division of Primary Health Care and UNICEF, is in theory linked to the EDL. These protocols are primarily for the use at the health posts (poste de santé) and not for the hospitals. The process for inclusion of new drugs into the treatment protocols is the same as for revising the EDL. Because the EDL and the STG are under different divisions of the Ministry, changes to either are not always made concurrently so that there may be differences in the two.

The majority of drugs in Senegal are imported, primarily from France, by both public service and private importers. Public Sector procurement is through the Pharmacie Nationale d'Approvisionnement (PNA). Procurement is done every two years, mainly through open tender, according to the Essential Drugs List (EDL). Delivery of the tender takes approximately six

months. The WHO certification is accepted as proof of quality control in the procurement process. Three wholesalers are responsible for the private sector distribution of drugs.

Antimalarials in Senegal

	Drug /Dosage Form	Brand	Registered	Class
1	Chloroquine tablets	Choroquine Nivaquine	Yes	Over the counter
	Chloroquine syrup	Choroquine Nivaquine	Yes	Over the counter
	Chloroquine Injection	Nivaquine	Yes	Over the counter
2	Amodiaquine tablets	Camoquin Flavoquine	Yes	C
	Amodiaquine syrup	Camoquin Flavoquine	Yes	C
3	Quinine tablets	Quinimax	Yes	Over the counter
	Quinine Inj	Quinimax Paluject	Yes	Over the counter
4	Artemisinin tablets		No	
5	Artemether tablets	Paluther	No	
	Artemether syrup (300mg)	Artésiane	Yes	
	Artemether inj	Paluther	Yes	Over the counter
		Artemether 20mg, 80mg		
6	Artesunate tablets	Arsumax	Yes	Over the counter
		Arinate 50mg, 100mg		
	Artesunate inj	Arsumax	No	
	Artesunate syrup	Arsumax	No	
	Artesunate supp	Arsumax	No	
7	Dihydroartemisinin tablet	Artemax	Yes	Over the

				counter
8	Primaquine		No	
9	Pyronaridine		Non	
10	Tetracycline	Tetracycline	Yes	A
11	Doxycycline	Vibramycine	Yes	A
12	SP	Fansidar Maloxine	Yes	A
13	trimethoprim	Bactrim Bactekod Septrin	Yes	A
14	Dapsone		No	
15	Azithromycin	Zithromax	yes	A
16	Piperaquine		No	
	Antimalarial Combinations			
1	Malarone®		No	
2	Coartem-4	Coartem	Yes	Over the counter
	Coartem-6	Coartem	Yes	Over the counter
3	Riamet-4		No	
	Riamet-6		No	
5	Artesunate + amodiaquine		No	
6	Artesunate + mefloquine		No	
7	Artesunate + amodiaquine		No	
8	Artesunate +chloroquine		No	
9	Artesunate + SP		No	
10	Piperaquine + dihydroartemisinin		No	

Annexes

1. Contacts in Senegal
2. Liste des Medicaments Essentiels (revision de 2001)
3. Ordinogrammes (Niveau poste de sante), 1999
4. Circulaire enregistrement de medicaments

Chapter Five

Discussion

The four countries described in this review are at different stages in their malaria epidemiology. Of the four countries, Kenya was the first to experience unacceptable levels of chloroquine resistance of more than 70% in some regions and changed its first line treatment policy for malaria from chloroquine to sulphadoxine/pyrimethamine (SP) in 1998. Tanzania followed soon after, however, resistance to SP in both Kenya and Tanzania is developing rapidly. Ghana has reported levels of chloroquine failures of 3-22%, while up to 25% clinical failures have recently been recorded in areas of Senegal. Both these countries are still recommending chloroquine as the first line of therapy. All four countries will soon be faced with having to replace their first line therapy for malaria.

Kenya, Tanzania, Ghana and Senegal all have functioning drug regulatory authorities that require that products be registered with the regulatory body before they can be used in the public and private sectors. The legal and regulatory functions in the countries in the four countries are all governed by functional pharmaceutical laws. These laws have been, to some extent updated in the Anglophone countries, however, they remain somewhat antiquated in Senegal. The main requirement in all four countries for registration is that the product being submitted for registration be registered in the country of origin. Artemisinin and its derivatives are registered and used in the private sectors in all four countries, however they do not exist on the Essential Drugs Lists nor on the Standard Treatment Guidelines. The public sectors in Ghana and Kenya appear to enforce the regulation that all drugs procured be registered in then country. In Senegal, many of the drugs imported by the PNA are not registered.

The processes of drug registration and procurement in the three Anglophone countries were clearly described in existing documentation and indeed clear guidelines exist for the registration of drugs, including the information and documentation required and standard documentation for application of registration.

Kenya, Tanzania and Ghana all have updated National Quality Control Laboratories, which have clear functions of quality assurance of registered and imported pharmaceuticals. The functions are carried out to varying extents. The “Laboratoire Nationale de Controle des Medicaments” in Senegal is currently undergoing restructuring and quality assurance procedures are now being put in place. Kenya, Tanzania and Ghana all require a submission of product samples, which undergo testing for quality control prior to registration. Senegal requires that product samples are submitted, however, they are not tested and registration is not dependent on quality assurance of the product samples.

All four countries in this study are said to participate in the WHO certification scheme. However, the statements of participation tend to represent their intent and does not necessarily reflect whether they are vigorously applying the scheme or not¹⁸¹. In Kenya, the WHO Certification

¹⁸¹ Wehrli, A. Telephone communication with N.Teoh, March 11, 2002.

forms the basis for a National certification Scheme for import and export of pharmaceuticals. The drug registration committee requests for this documentation as part of the documentation in the application for registration. However, it appears that this is not enforced in Kenya, Tanzania or Senegal. In Ghana, bidders are required demonstrate that products fulfill the WHO certification before being allowed to participate in the public sector tender process.

Kenya and Tanzania both have their own Good Manufacturing Practice Guidelines based on the WHO Guidelines. In Kenya, the pharmaceutical manufacturers also have their own draft guidelines and there exists a GMP team in the pharmacy inspectorate. Products that are manufactured or imported into Kenya are required to be manufactured under GMP, however, in practice none of them meet the standards set by the Board. In Tanzania, GMP certification is required for registration for locally manufactured and imported products. Many do not meet these requirements and thus are not registered, but are still available in the country through the public and private sectors. In both Ghana and Senegal, it is expected that manufacturers follow GMP and evidence of certification is required to be submitted with the application for registration, however, this is not enforced. Neither of the West African countries have their own GMP Guidelines but rather, rely on the WHO guidelines In Kenya, Crown Agents has inspectors that carry out inspections all over the world. Crown Agents also has a certification process for all agents who receive the tender documents.

Ghana and Tanzania have a continuous reporting system on post-marketing surveillance to WHO. Reports are sent to the WHO Collaborating Center on International Drug Monitoring in Uppsala, Sweden¹⁸². This is carried out on a random basis. In Kenya, some adhoc lot assays are performed on imported products as well as registered products on the market.

Procurement in all four countries is carried out by open international and national competitive tenders. In Kenya, Tanzania and Ghana, procurement is carried out annually, while in Senegal it occurs every two years. All four countries have a provision for procurement in between the major supply if the need arises. All have a specialized drug procurement unit in the Ministry of Health. In Kenya, the actual procurement is carried out by Crown Agents. Procurement is carried out according to the Essential Drugs Lists in each country.

All four countries require the importer to hold a license to import pharmaceuticals and an application for a permit must be made for each importation, whether the importation is for the public or private sectors. The private sector in all the countries is prolific and provides more than 50% of the healthcare in the country. While all the laws pertaining to pharmaceuticals are applicable to both the public and private sectors, often in the absence of a strong inspectorate to enforce regulations, the private sector tends to function very differently from the public sector.

¹⁸² Couper, M. (WHO). Telephone communication with N. Teoh, March 11, 2002.

Summary tables

Table 1: Summary of Drug Registration and Procurement in Kenya, Tanzania, Ghana and Senegal

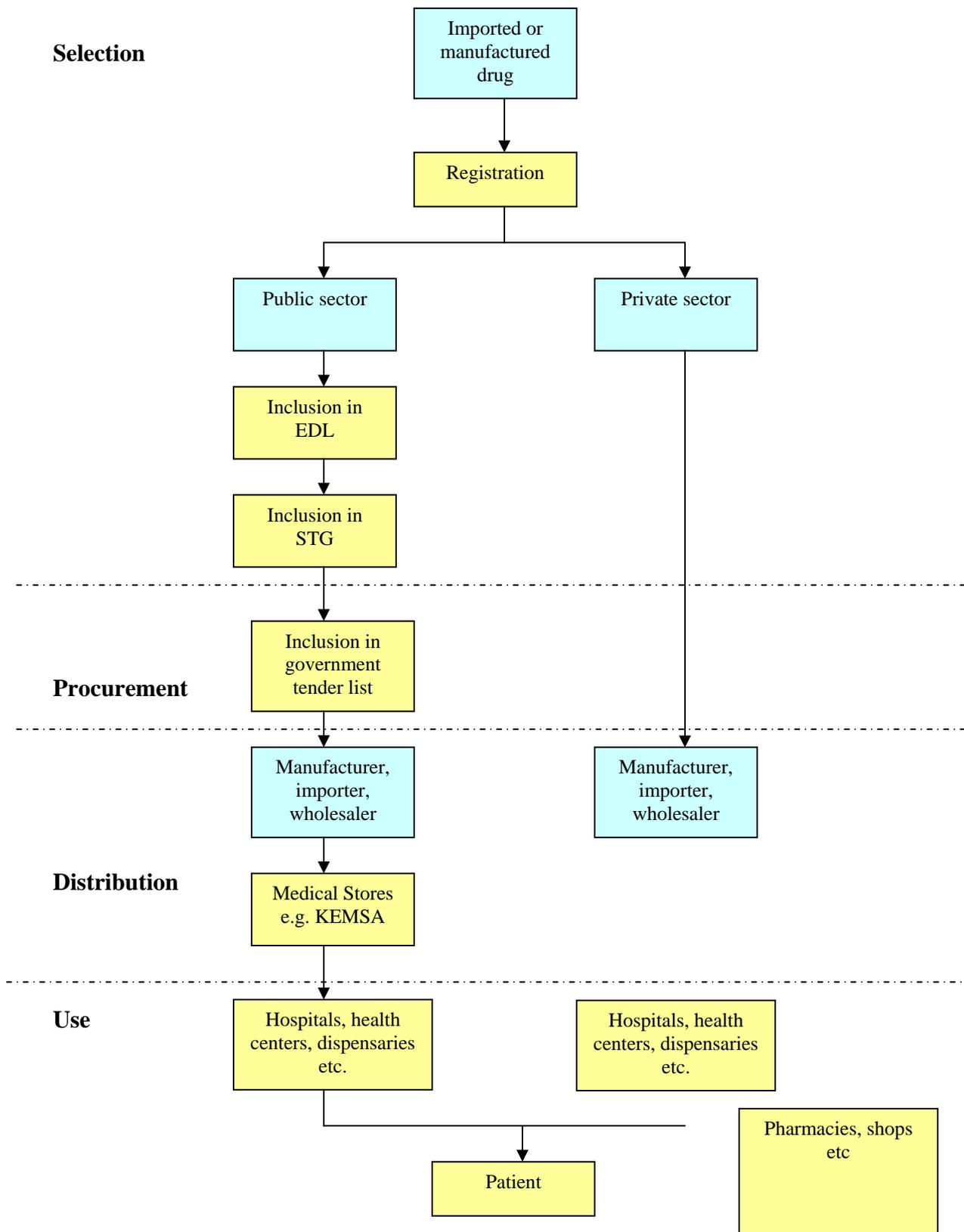
	Kenya	Tanzania	Ghana	Senegal
Existence of a registration system?	Yes	Yes	Yes	Yes
Do all drugs being imported or manufactured have to be registered?	Yes	Yes. But many that do not comply with GMP are not	Yes	Yes. But many procured by PNA are not
Evidence from clinical trials required for registration	Yes	Yes	Yes	Unclear
Revision of in EDL and STG	National Pharmacy and Therapeutics Committee (NPTC) considers requests to revise guidelines	National Drugs and Therapeutics Committee considers requests to revise guidelines (NEDLIT)	Office of Chief Pharmacist considers changes to EDL and STG based on expert opinion	Commission under the DMP considers revisions of the EDL and STG
Public procurement	Open competitive international and national tender annually	Open competitive international and national tender annually	Competitive international bidding Competitive National bidding Shopping and direct contracting for goods	Open competitive international and national tender every two years
Does the government tender system support local manufacturers?	Yes	Yes	Yes	Yes

	Kenya	Tanzania	Ghana	Senegal
GMP requirements	Own GMP Guidelines Locally manufactured and imported goods required to be GMP certified but not enforced.	Own GMP Guidelines Locally manufactured and imported goods required to be GMP certified but not enforced.	Locally manufactured and imported goods required to be GMP certified but not enforced.	Locally manufactured and imported goods required to be GMP certified but not enforced.
WHO certification scheme	Participates in WHO certification scheme, but not enforced	Participates in WHO certification scheme, but not enforced	Participates in WHO certification scheme, but not enforced	Participates in WHO certification scheme, but not enforced
Other quality control requirements	Registered in the country of origin Samples assayed for quality prior to registration	Registered in the country of origin Samples assayed for quality prior to registration	Registered in the country of origin Samples assayed for quality prior to registration	The only requirement in Senegal is that the drug be registered <i>and used</i> in the country of origin. It is assumed that if it is good enough for the country of origin, it is good enough for Senegal
Drug Regulatory Authority	Pharmacy and Poisons Board (PPB)	Pharmacy Board (PB)	Food and Drugs Board (FDB)	“Direction de Pharmacie et Medicaments” (DPM)
Drug Regulatory Act	Pharmacy and Poisons Act	Pharmacy and Poisons Act Pharmacy and Poisons Law	Food and Drugs Act	
Categories of Drugs	POM P Dangerous Drugs Psychotropic Drugs GSL (OTC)	POM P Dangerous Drugs GSL (OTC)	POM OTC	A B C ”Hors classe” (OTC)

Table 2: Summary of registration requirements for combination therapies in Kenya, Tanzania, Ghana and Senegal

	Kenya	Tanzania	Ghana	Senegal
Fixed dose combinations	Requires a new registration with fee	Requires a new registration with fee	Requires a new registration with fee	Requires a new registration with fee
Introduction of new a dosage form	Requires a new registration with fee	Requires a new registration with fee	Requires a new registration with fee	Requires a new registration with fee
Introduction of new duration of treatment for existing drug	Requires a new registration with fee	Requires a letter/notice with evidence of efficacy. No separate application is required, but a fee must be submitted	Requires a new registration with fee	Requires a letter/notice with evidence of efficacy. No separate application is required, but a fee must be submitted
Pre-packaged combinations	Requires a new registration with fee	Requires a new registration with fee, however, this is unclear as the government does not currently support pre-packaged combinations	If both drugs are made by the same manufacturer, and both are registered, no new application is required. If made by different manufacturers, a new application is required	Not clear
Co-administered combinations	No new registration is required	No new registration is required	No new registration is required	No new registration is required

Figure 1. Process of introducing a new combination therapy in Kenya, Tanzania, Ghana and Senegal



Annexes

Annex 1
Kenya

Annex 2
Tanzania

Annex 3
Ghana

Annex 4
Senegal

Acknowledgements

Ghana

Mr Lee Yerkees, Management Sciences for Health, USA

Mr Johnnie Amenyah., JSI, USA

Kenya

Dr Michael Thuo

Management Sciences for Health, Regional Health Advisor, Kenya

Ms. Christine Onyango

Management Sciences for Health, Kenya

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KEMSA, Kenya

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Senegal

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Diallo

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Jane Briggs
Management Sciences for Health

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