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Non-Communicable Diseases Management and A Product License in Singapore

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ABSTRACT

The market selection affects the sales to the larger extent as market is the main zone for the passage of the drugs from the manufacturer to the consumer. The understanding of the diseases in the particular region and launching a product to address an issue rising out of the region wise will help the drug manufacturer to accommodate a product in the market. Though getting the approval is a herculean task, the fruits borne out of the approval will be in form of the turnover generated and the sole contributor shall be the Market itself. South East Asian market is one of the most promising markets in the Asian region because of its wider population and good regulatory practices differing slightly in some parameters, as well as the pricing, making it one of the favourable destinations for the manufacturers and creating a best platform for the product development.

INTRODUCTION:

Scheme for Indian Generic products:

India and Singapore had signed Comprehensive Economic Cooperation Agreement for registration of Generic products manufactured in India. The registration of generic products is approved if the product meets the eligibility and documentary requirements[1]. The present work vehemently gives a picture of the lifestyle diseases scenario in the region and revolves around the submission methodology followed for the generic drugs that are used in the treatment of Lifestyle diseases disorders. Present day the more focus lies in tackling of the situation of lifestyle diseases and more emphasis is on the use of Generic drugs which are less expensive for the manufacturers and more affordable by the patients. Maximum share of market is governed by the generic drug and more manufacturers are considering in investing in the generic sector rather than innovative sector. The choice of Southeast Asia as a platform for the business is considered as a golden bowl for the manufacturers as well as importers. The main to the point reason for considering Southeast Asia as a destination for the market is ever rising GDP and government initiatives by the nations respectively.

Non communicable diseases:

Singapore is a small city-state with a land area of683 sq km (1) and a resident population of 3.26 million. The three major ethnic groups are Chinese (77%), Malays (14%) and Indians (8%). About 7% of the population is 65 years or older, and the median age of the population is 34 years. Cancers and cardiovascular diseases are the major conditions affecting Singaporeans today, accounting for more than 60% of all deaths. The prevalence of life style diseases in the Singapore region is more. In Singapore, the rate of diabetes has risen to a 12-year high, according to the latest national health survey (source Singapore health ministry).11.3 percent of adults aged between 18 and 69 are diabetic. The prevalence of hypertension & high cholesterol has also increased. The increased prevalence of hypertension & high cholesterol was seen in both the sexes and in all the races between 18-69 years. Diabetes prevalence has also increased in the older age groups for the same period.

Diabetes and hypertension confers a person with a higher risk for cardiovascular diseases. Nearly two-thirds (62%) and more than half of Singapore residents with diabetes mellitus and hypertension respectively were not aware of their disease status. Racial, cultural and religious

practices have influenced cancer care. Cancer is one of the leading causes of death. About one in four death is due to cancer[1].

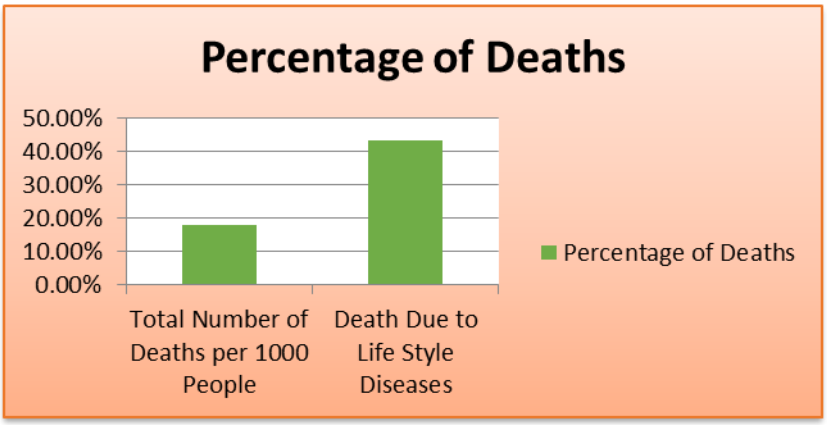

Figure 1: Total no of deaths due to life style diseases/non communicable diseases

Age standardized death rate per 1, 00,000

Total life style diseases	610.9,
Cancer	232.5,
Cardio-vascular diseases	280.1[41].

Medicinal product registration

Under the Medicines Act, a **"medicinal product"** refers to any substance or article (not being an instrument, apparatus or appliance) which is manufactured, sold, supplied, imported or exported for use wholly or mainly in the following ways:

- Use by being administered to one or more human beings for a medicinal purpose; and/or,
- Use as an ingredient in the preparation of a substance or article which is to be administered to one or more human beings for a medicinal purpose.

A Product License is required before a medicinal product can be sold or supplied in Singapore (Medicines Act, section 5), unless otherwise exempted under the law. Each Product License is specific to a product:

- Of a particular name;
- With a particular formulation;

- Ina particular dosage form (i.e. physical presentation) and strength; *and*
- With a particular set of approved indications and directions for use.

Any changes to the above parameters may result in the need to submit an application to vary the existing Product License or possibly obtain a new Product License altogether.

Forensic classification

Medicinal products approved for registration in Singapore are classified under three forensic classes:

1. **Prescription Only Medicine (POM);**
2. **Pharmacy only medicine (P); or**
3. **General Sale List medicine (GSL).**

Table 1: Differences between different types of Product.[2]

Prescription only product	Pharmacy only product	General sales list Medicines
Considered as dangerous for self-use and requires supervision of Doctor, Dentist, and Pharmacist.	Not dangerous enough to be categorized as prescription product. Requires instruction only from the Pharmacist.	Generally safe and can be sold without supervision of Doctor, Dentist, Pharmacist.
The contraindications being complex are not properly understood by the patient and requires application	The contraindications are not easily understood by the patient and require instructions from the Pharmacist.	The contraindications are very easy to understand by the patient.
Special precautions and the intensity of the care required is more as in this case.	Special precaution is needed in the storage and handling of the product.	Hazard to health, risk of misuse, risk of improper diagnosis, need to take special care are less.

Registration process:[3-5]

One part of a product's life cycle is the pre- marketing activities, namely registration of the product prior to the entry into the market.

The registration process involves the following steps:

1. Pre submission preparation,
2. Application submission,
3. Screening of the application,
4. Evaluation of the application,
5. Regulatory decision,
6. Post approval changes.

Pre-submission stage involves the following activities:

The first step in the registration process is one of the most important because it involves.

- Knowing which application to apply for;
- Knowing which evaluation route to choose; and,
- Arranging for a pre-submission consultation with HSA for advice, if required.

Types of application:

In applying for a *new* Product License for a medicinal product in Singapore, there are two categories of applications:

- A New Drug Application (NDA) and
- A Generic Drug Application (GDA):

New drug application:

NDA-1

Is applicable for first strength of product containing new chemical, or biological entity.

NDA-2

For the first strength of a New Product:-

1. Containing a new combination of registered chemical or biological entities;

2. Containing registered chemical or biological entity(ies) in a *new* dosage form;

3. Containing registered chemical or biological entity(ies) for use by a *new* route of administration; or,

4. Containing registered chemical or biological entity (ies) for *new* indication(s), dosage recommendation(s) and/or patient population(s).

For new drug products that do not fall under the requirements for NDA-1, NDA-3 or GDA.

NDA-3

For *subsequent* strength(s) of a new drug product that has been registered, or has been submitted as NDA-1 or NDA-2. The product name, pharmaceutical dosage form, indication, dosing regimen and patient population shall be the *same* as that for the NDA-1 or NDA-2.

Generic drug application

GDA -1: for the first strength of the product.

GDA- 2: for the subsequent strengths of the products of generic chemical product that has been registered or has been submitted as GDA 1. The product name and pharmaceutical dosage form shall be in the same as that for the GDA-1.

Evaluation routes

There are 3 types of evaluation routes for the registration of Generic Drug product.

Full dossier evaluation

Applies to a product that has not been approved by ***any*** drug regulatory agency at the time of submission.

Abridged dossier evaluation

Applies to any product that has been evaluated and approved by *at least one* drug regulatory agency.

Verification dossier

Applies to any product that has been evaluated and approved by HAS's reference drug regulatory agencies, which include EMA, US FDA, Health Canada, TGA and UK MHRA.

Pre-submission consultation

To clarify any doubts rising during the submission's the applicants are encouraged to have pre-submission meetings with the regulatory authorities.

There are two methods available to clarify any doubts arising during the submission:

1. Pre submission enquiry.
2. Pre submission meeting.

Pre submission enquiry[6-8]

Applicant may submit a pre- submission inquiry via e-mail if any clarification is required on the medicinal product prior to the submission.

The mail should be sent to following address hsa medprod_registration@hsa.gov.sg.

Subject of the mail should be Pre submission inquiry. The subject presence directs the mail to the relevant officer. Once the mail is received the matter is looked into by the relevant officer for the clarification of the queries. Once the officer prepares the response the response mail is sent back to the applicant.

Pre submission meeting:

For complex issues relating to an impending submission applicants can consult **HSA** at the pre submission meeting.

The request for the consultation should be made in writing with the purpose, agenda, and proposed date & time of meeting.

For submission under the full evaluation route:-

The applicant is required to notify HSA via a pre- submission meeting two months before to the intended **submission date** of application dossier.

APPLICATION SUBMISSION: [9-13]

Application submission comprises of two parts:

1. Prism application form,
2. Registration dossier.

- Prism application form is for ***on-line submission*** of applications.
- Registration dossier is submitted to ***support the evaluation*** of the submitted application.

Registration dossier:

The complete dossier should be submitted within 2 working days after the prism application submission to prevent the delay in the processing of the application. The date of the submission of application would be decided based on when the HSA received the complete dataset of the application. Registration dossiers should be in a CTD format. The CTD provides a common format for the preparation of a well-structured submission dossier. It uses a modular framework described in ICH Topic M4 or the ASEAN guidelines on the Common Technical Document for Registration of Pharmaceuticals for Human use: Organization of the Dossier. The choice of the format to submit the application lies with the applicant.

Language:

Information & documents supporting an application such as certificates approval letters should be in English[2].

Authentication of the documents:

For the foreign documents for the use in Singapore, require authentication. If the foreign document is original and bears the seal and signature of the required official then notarization or authentication of the documents is not required.

Notarization of the documents should consist of the following things:-

1. The name of the notary;

2. A statement that the notary is duly admitted to practice in the place of issue of the certificate;

3. The names of the signatories and the capacity in which they have executed the document, whether on their own behalf or in an official or representative capacity;

4. A statement authenticating the signatures of the parties and, where appropriate, indicating that evidence has been produced to the notary proving the capacity in which they have executed the document;

5. The place and date of issue of the notarial certificate; and

6. The signature and seal of the notary.

Certification of non-original documents:

A certified true copy that the photocopy presented is a true and accurate copy of the original document. Acceptable of the documents to support product applications to HSA can be done by the company director or by the any lawyer, notary public, commissioner for oaths/Declaration/Affidavits, justice of peace, the original issuer of the document or embassy consulate. A notarized copy is same as the certified true copy.

Application screening

After the submission of the application the application are screened thoroughly to check that the correct application had been filed by the applicant, and that there are no deficiencies from the side of the applicant so as to not delay the approval process.

If any deficiencies are present in the application submitted via PRISM format an input request will be issued to the applicant.

The stop clock period starts whenever HSA request for clarification of additional information. The stop clock ends whenever receives the response from the applicant which is satisfactory in detail. The applicant will be required to submit all of the requested information and documents within 30 calendar days from the date of the screening query letter. Any deficiencies noted must be addressed before the dossier can be accepted for evaluation.

When the response to the screening query letter has been received, the requested information and documents will be screened for completeness. The dossier will be accepted when all requested information, and hence, the registration dossier, is found to be adequate. An acceptance notice will be issued to the applicant via email upon acceptance of an application. The date of acceptance of the application will be considered as the start of the evaluation timeline.

If the applicant fails to provide the requested information, or the submitted information is incomplete or contains unsolicited information, the application will not be accepted for evaluation. A non-acceptance letter will be issued by HSA and the documents will be returned. If the applicant wishes to resubmit the dossier at a future time, it will be processed as a new application.

Applicants are advised to ensure that the dossier is compiled according to the required format. Failure to arrange the submission dossier accordingly will lead to non-acceptance of the dossier without screening.

Screening of the application determines only the completeness of the registration dossier for the evaluation. Acceptance of the dossier for the evaluation does not consist of the acceptability of the data provided.

During the evaluation process, HSA may determine that the application is more suitably evaluated via an alternate route. Any re-routing of the application will be discussed with the applicant. HSA may engage external evaluators, experts and advisory committees in the evaluation process, when necessary. These experts include scientists and clinicians from both local and overseas institutions. All external evaluators and experts are bound by agreement to protect the information made available to them. The identity of the external evaluators is kept confidential.

Regulatory decision:

The regulatory decision by the authorities is based on the quality of the data received by them and the submitted package.

Applicants would be notified of the decision by the authorities through the letter, the following outcomes;

1. **Approval** – the application has satisfied the registration requirements for quality, safety and efficacy;

2. **Approvable** – when application has minor deficiencies.

3. **Non approvable**- when application has major deficiencies.

4. **Rejection** – when the response provided by the applicant fails to address the major deficiencies highlighted in HAS's non-approvable decision.

Approval and rejection are final decisions issued by HSA.

An application will be considered withdrawn if the applicant fails to reply within the stipulated timeframe subsequent to an approvable or a non-approvable decision. Once an application is withdrawn the applicant can submit a new application as per the prevailing application requirements. Based upon the decision of the regulatory body the product license will be issued.

HSA may issue a product license on the condition that certain documents/information shall be submitted after the license has been issued. Under such circumstances, an official letter of commitment is required before the license can be issued. The letter of commitment should be specific, i.e. it addresses the particular issues of concern and should provide details on how and when the post-approval licensing commitments will be fulfilled. Failure to comply with these commitments may result in the suspension or revocation of the Product License.

Registration requirements:

Administrative documents:

Administrative documents relate to part I of ACTD and module I of ICH CTD.

Section 1.1 – Comprehensive table of contents:

The comprehensive table of contents is a complete list of all documents provided in the application dossier by Module/Part. If a hardcopy registration dossier is submitted, then the location of each document should be identified by the volume number and tab identifier.

Section 1.2- Introduction

Applicants should give a concise summary of the application and justify the need for the application. Applicants should also justify the lack of certain documents within the dossier and any deviation from the guidelines.

Section 1.3- Application form

A printout of prism application form is to be included in the dossier.

Section 1.4- Labelling, Package insert and Patient Information Leaflet.

Applicants are required to provide the artwork/drafts of the proposed Singapore product labels, PI and/or PIL for the product. The submission is dependent on Forensic classification of the drug.

Table 2: Labelling Requirements for medicines in Singapore

	Forensic Classification in Singapore		
	POM	***P***	***GSL***
Package Insert (PI), also known as prescribing information, SPC, or product monograph	**Required**	*Optional*	*Optional*
Patient Information Leaflet (PIL), also known as consumer medicine information (CMI)	*Optional, unless warranted*	**Required**	**Required**

The labels should be legible and no handwritten information is acceptable, separate labels should be submitted for different pack sizes of the product. The labels, PIL's, PI should be in English and for labels in non English language, an official statement declaring that non-English text is complete, accurate and unbiased information and is consistent with the English text, must be submitted.

Section 1.5- Approved SPC/PI/PIL.

Applicant should submit the approved SPC, PI and/or PIL from the drug regulatory agency that issued the proof of approval.

Section 1.6- Assessment report form from the agencies.

This section refers only to applications submitted under the verification evaluation route. Assessment reports and supporting documents issued by the chosen reference agency and inserted into this section must be unedited.

Section 1.7- Description of Batch Numbering System.

Detailed information on assigning batch identification codes to facilitate in the identification process should be provided.

Section 1.8, 1.9 Proof of approval.

It is not required for the GDA undergoing abridged evaluation for the finished products manufactured in Singapore.

For an imported GDA product, proof of approval by any drug regulatory agency is required. Proof of approval must come in the form of an official approval letter, or equivalent document (e.g. Certificate of Pharmaceutical Product), which certifies the registration status of the drug product; and the SPC, PI and/or PIL approved by the drug regulatory agency that issued the approval letter. Approval letters should be either an original copy or a certified true copy and in English.

If the brand name of the drug in Singapore is different from the brand name in country that issued approval, then a declaration should accompany stating that both products marketed under different brand names are identical.

Section 1.10 Authorization letter.

All the authorization letters shall be original letters in the letter head of the authorizing company, dated and signed.

If the Product Owner is not the local Applicant Firm, Manufacturer and/or Batch Releaser, then the following authorization letter(s) must be submitted:

1. From the product owner to applicant firm.
2. Product owner to manufacturer.
3. Product owner to batch releaser.

Applicants are to ensure that all names and addresses in the authorisation letter(s) must be consistent with the information provided in PRISM and the dossier.

Section 1.11 GMP certification.

Applicants must submit a GMP certificate issued by a drug regulatory agency for all drug product manufacturing sites including, but not limited to, bulk product manufacturer(s), primary packer(s) and secondary packer(s). GMP certificate must not expire with six months from the time of submission to HAS and must be in English, and in original or certified true copy.

Section 1.12 Patent Declarations.

The Patent Declaration form is required for each GDA. An original, signed and dated hardcopy patent declaration form should be submitted for each application. Applicants should refer to section 4 on information on Patent Linkage and Appendix 7 for a copy of the Patent Declaration Form.

Following points to be present when filling patent declaration form:

1. Applicant particulars- Name and address of the local company.

2. Product particulars- Product name, name and strength of active ingredient, and dosage form.

3. Application category- the patent category of the product falling under the particular purview as per Singapore patent.

Patent declaration should be signed by a person authorized to make the declaration on behalf of the company, should bear the original signatures of the person and must have the company stamp.

Section 1.13 Declaration on rejection, withdrawal, deferral

The document required for this section consists of a declaration letter that states that the application as submitted to HSA has not been rejected, withdrawn, has not been approved by an appeal process, pending approval by any of the reference Drug Regulatory Agency.

Section 1.14 Declaration for GDA verification.

This part is applicable only to Verification route. This states that all the aspects of product's quality are identical to that currently approved by chosen reference regulatory agency. If DMF is submitted, then a second declaration must be also provided to state that DMF submitted to HSA is identical to that submitted to primary reference drug regulatory agency.

Section 1.15 Registration status in other countries.

Regulatory status of the drug in other countries should also be given and should be attached to Prism form.

CTD overview and summaries

The overview and summaries are the list of documents that are to be inserted into Module- 2 of ICH- CTD or into relevant sections in part II, Part III, and IV of ACTD. Completed Singapore Quality Overall summary (SQOS) must also be inserted into Module 2, section 2.3 of ICH CTD or part II, section B of ACTD. If submitted electronically then SQOS should be in **Microsoft Word format**. Information is SQOS should be based on documents located in each of CTD dossier sections provided by drug product manufacturer. All tables should be in these parts should be filled out properly. All the relevant section should be updated when additional or updated documents are submitted in response to an input request.

Quality Documents: Quality documents relate to part II of ACTD.

Drug substance manufacturer is being responsible for the quality of the drug substance. In dossier the applicant should make reference to the supporting documents such as DMF, CEP if they are attached. If the applicant follows ACTD complete S section should be attached.

Drug Master File: A Drug Master File is a reference that provides information about specific processes or components used in the manufacturing, processing, and packaging of a drug. The DMF contains information of a proprietary nature that is not available to the drug product manufacturer or to the applicant of a product registration submission. If a drug substance is sourced from a manufacturer that is different from the drug product manufacturer, data on the manufacture, quality control and stability of the drug substance may be submitted in the form of a DMF. If the drug substance and drug product are manufactured by the same manufacturer, then either a DMF or complete S section can be submitted.

Along with the DMF a letter of access should be attached, which authorizes HSA to refer DMF in support of application. Upon receipt of DMF HSA will assign a DMF number which shall be used for further communications purpose.

Certificate of Suitability:- A Certificate of Suitability is a document issued by European Directorate for the Quality of Medicines and Healthcare (EDQM) that certifies the quality of a drug substance in compliance to the Ph. Eur. A CEP may be submitted in lieu of the CTD S Section or a DMF. If reference is made to a CEP, the applicant should submit a copy of the duly authorized, valid CEP, including all annexes.

Control of Drug substance: Batch analysis data should be provided by the drug substance and drug product manufacturers on the same drug substance batches, if available. While it is not required to submit data on three batches, the data should be for a production-sized drug substance batch, if available.

Stability data on drug substance: At least 12 months of real time data and 6 months of accelerated data on at least three primary batches of the drug substance, The batches should be at least pilot scale-sized and manufactured by a method that simulates the final commercial process. If drug substance is from multiple sites stability data from each of these sits must be present.

Drug product: Pharmaceutical Development:

Detailed descriptions and discussions, with relevant data, which relates to the development, and hence quality, of the drug product should be provided such as

1. Polymorphism
2. Description and results of product development.
3. Rationale for selecting dissolution technique.
4. Compatibility of container closure system
5. Optimization results.

Process Validation:- The description, documentation and complete results of the validation studies on the manufacturing process should be provided in the dossier. Particular care should be taken to ensure that the documents include critical processes for the manufacturing

process: for example, blend uniformity validation for oral dosage forms and terminal sterilization or aseptic filling for sterile products.

Control of Excipients: This section refers to all excipients used in the drug product formulation, including ingredients used in capsule shells and film coatings. The specifications and analytical method(s) for each excipient should be described, with validation of any in-house test method(s) if applicable. A CoA for an excipient may be submitted in lieu of the excipients specifications.

Control of Drug product: The drug product's release specifications should be declared, descriptions of test methods, with complete validations results of all in-house methods should be included. Batch analysis, COA's of the drug product should be provided, justifications of the specifications should be based on scientific knowledge and data collected during product development.

Container closure system: Technical information about each component of the container closure system(s) used for the drug product should be included in the dossier. The technical information to be included in the dossier includes, but is not limited to, schematic diagrams, descriptions, specifications, analytical methods, CoA's and declarations of compliance to international standards.

Stability data of Drug Product: At least 12 months of real time data and 6 months of accelerated data on primary batches of the drug product. The primary batches should be manufactured by the same method(s) and packaged in the same container closure system as that proposed for Singapore. All the data submitted should be site specific to Singapore.

Product interchangeability: In-vivo BE data is required for prescription only medicines in oral solid dosage form, as well as for GDA II applications if they are Solid oral dosage forms. Applicants should ensure that all relevant appendices and data are present.

In instances when bio waiver of submission of a BE study is justified, then comparative dissolution profiles between the generic and Singapore reference products, as per guideline, are required.

Non-Clinical and clinical documents: GDAs generally are not required to include non-clinical (animal) and clinical (human) data to establish a drug product's safety and efficacy.

Instead, documents required must demonstrate product interchangeability with the Singapore reference product – e.g. in vivo BE and comparative dissolution studies.

Specific Documentary requirements for specific applications:

Abridged evaluation route: All aspects of the product's quality which includes, the formulation, site(s) of manufacture, release and shelf-life specifications and primary packaging should be the same as that approved by the drug regulatory agency that issued the proof of approval.

- Complete quality documents for both drug substance and drug product.
- Be studies for bio waiver

Verification evaluation: Complete assessment report and other relevant supporting documents from the chosen reference agency must be submitted.

Table 3: Documentary requirements for verification evaluation.

Primary reference agency	**Documentary requirements**
Health Canada and MHRA	• Complete Clinical and Quality# assessment reports, including assessment on the Question & Answer documents between the Sponsor & Agency and all annexes • Assessment reports and/or documents pertaining to post-approval variations, if applicable
US FDA	• Complete Clinical and Quality# assessment reports, including assessment on the Question & Answer documents between the Sponsor & Agency and all annexes* • Assessment reports and/or documents pertaining to post-approval variations, if applicable.
EMA	• Complete CHMP Assessment Report#, including the following: • Rapporteur's and Co-Rapporteur's Day 80 Assessment Reports (non-clinical, clinical, quality, overview and List of Questions)

	• CHMP Day 120 List of Questions • Rapporteur's Day 150 Assessment Report (non-clinical, clinical, quality and overview) • Day 180 List of Outstanding Issues • All other annexes and appendices • Summary of CHMP Opinion • Assessment reports and/or documents pertaining to post-approval variations if applicable.
TGA	• Complete Clinical Assessment Reports, including assessment on the Question & Answer documents between the Sponsor & Agency and all annexes. • Complete Chemistry and Quality Control Assessment Report#, including assessment on the Question & Answer documents between the Sponsor & Agency and all annexes • Assessment reports and/or documents pertaining to post-approval variations, if applicable

Verification Route Requirements:

Administrative documents:

1. Proposed PIL/ Pi should be aligned to currently registered Singapore reference product PIL/PI.

2. Official approval letter from chosen regulatory agency that certify the registration status of drug product.

3. Official letter declaring that the application submitted to HSA or similar direction(s) of use, indication(s), dosing regimen(s) and/or patient group(s) have not been rejected, withdrawn, approved via appeal process, or pending deferral by any drug regulatory agency.

4. Official letter declaring that Drug master file provided is same as that submitted to the chosen reference agency.

5. Official letter declaring that all aspects of the product's quality intended for sale in Singapore are identical as that currently approved by the chosen reference regulatory agency.

Technical Documents:

1. Quality documents for Drug products and drug substance include Question and Answers between the chosen reference agency and sponsor – the Answers should include supporting documents used in response to the Questions.

2. All post-approval variations approved by the chosen reference agency up to the time of submission to HSA, including the application letter for the variation, supporting documents for the variation.

3. Documents required to HSA which were not submitted to reference drug regulatory agency before, which include stability studies as per ACTD SQOS, comparative dissolution studies.

4. The initial open and closed parts of the DMF submitted to the chosen reference agency from the DMF Holder should be provided to HSA, together with the original Letter of Access.

5. All post approval DMF updates approved by chosen reference agency up to time of submission to HSA, including application letter for DMF letter update, question and answers between reference agency and sponsor.

6. BE studies or justification of bio waiver as initially submitted to regulatory agency with all questions and answers, supporting documents, documents demonstrating interchangeability with the Singapore reference product[4].

ASEAN region as it is famously known consists of 10 nations namely Indonesia, Malaysia, Thailand, Singapore, Philippines, Vietnam, Brunei, Laos, Myanmar and Cambodia. Of the above listed countries first five countries command a good share in generic sector, steadily growing economies, rest five countries lack certain resources and are hampered by certain constraints such as lack of support from the government, lack of industries manufacturing the medicines, and more reliability on traditional medicines which are of no match to the ones which are manufactured in the industry.

This region is ear marked to have high percentage of grey population with age over 65 and growing incidence of **lifestyle diseases** and ever increasing expenditures on the lifestyle disease treatment, thereof providing a chance for Pharmaceutical manufacturers to explore the market and gain much out of it.

Outcome

The present study helps in the following manner:

- **Assess** future market values with unique and regularly reviewed independent market forecasts.
- **Track** the latest developments with the news service that is included for every country.
- **Understand** the critical issues and drivers which are shaping the market.
- **Evaluate** the environment for branded and generic operators and stay in touch with the fast growing generic sector.
- **Shape** and support business plans and decisions with reliable regulatory data.
- **Benchmark** key market performance.

The markets in ASEAN region are purported to have the cumulative pharmaceutical value of **Billion 80$**.

The process of getting approval and the timelines associated with the approval play a crucial role in the process of establishing a product of a pharmaceutical company in a particular market region and segment. The selection of the particular region for the launch of a product will have a substantial impact on the sales and profit of the market as the product manufacturers are always faced with the time constraints and the timeline matters. Timelines in turn are a matter of concern to the company as more the time it takes for the approval of a drug more delayed it gets for the launch of the product and in turn leads to loss of the capital to the manufacturer. The availability of the medicines and the accessibility of them make the growth of the pharmaceutical manufacturing companies as well as establish a product in the mind of the consumers.

The market selection affects the sales to the larger extent as market is the main zone for the passage of the drugs from the manufacturer to the consumer. ***The understanding of the diseases in the particular region and launching a product to address an issue rising out of the region wise will help the drug manufacturer to accommodate a product in the market.***

Though getting the approval is a herculean task, the fruits borne out of the approval will be in form of the turnover generated and the sole contributor shall be the Market itself. South East

Asian market is one of the most promising markets in the Asian region because of its wider population and good regulatory practices differing slightly in some parameters, as well as the pricing, making it one of the favourable destinations for the manufacturers and creating a best platform for the product development.

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