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Research Article

COMPARISON OF GENERIC DRUG REGISTRATION REQUIREMENTS IN ASEAN COUNTRIES

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ABSTRACT

Asian counties suffering from the high price charged for branded name drugs. Generic drugs which cost less than branded drugs and are competitive, play a significant role in increasing access to drugsand reducing the expenditure on them. South East Asian pharmaceutical market is rapidly growing market. In Asian region 10 countries are included. The regulatory environment is similar among all countries. But still requirements and process of registration is varying among countries of Asian region. Although ACTD is harmonized for all 10 countries but still every country is differ in some of the local requirements such as Administrative, technical, clinical and non clinical documents. This review article will give the easy understanding on the drug registration requirements for Asian region.

Keywords: ACTD, CEP, COA, API.

INTRODUCTION

The Association of Southeast Asian Nations (ASEAN) contains the following 10 countries like Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar and Cambodia was establish in 1967 to promote pharmaceutical market in ASEAN countries.

ASEAN region is considered as “Emerging market” for pharmaceutical export and bilateral trade. The understanding of the registrations & regulatory requirements of this region can be beneficial for pharmaceutical export.

The regulations of ASEAN countries are encouraging the import of quality generic products.

Current status of generics in Asean countries:

a. Southeast Asia, with its fast-growing, young population and uninsured majority represent a great opportunity for generics in the pharmaceutical industry.
b. Although the generic market is currently quite small, improved access to medicines in the region means that it is growing rapidly and is expected to reach US$3.9 billion by 2016.
c. This fact is expected to both intensify competition and attract multinational pharma companies to the area.

Dossier requirements

- The dossier requirements for the ASEAN countries are in principle very similar to the requirements for the ICH countries.
- ASEAN Common Technical Dossier ACTD is common application format that will be submitted to ASEAN regulatory authorities for the registration of pharmaceutical products for human use.

- Even though some of the Individual ASEAN Countries have their own drug registration formats, all ASEAN countries accept the ACTD.

Asian common technical documents

The ASEAN countries established the ACTD as their format for submissions. It is astandard derived from the ICH CTD. The ASEAN CTD is a guideline of the agreedupon common format for the preparation of a well structured ACTD application thatwill be submitted to ASEAN regulatory authorities for the registration ofpharmaceuticals for human

DISCUSSION

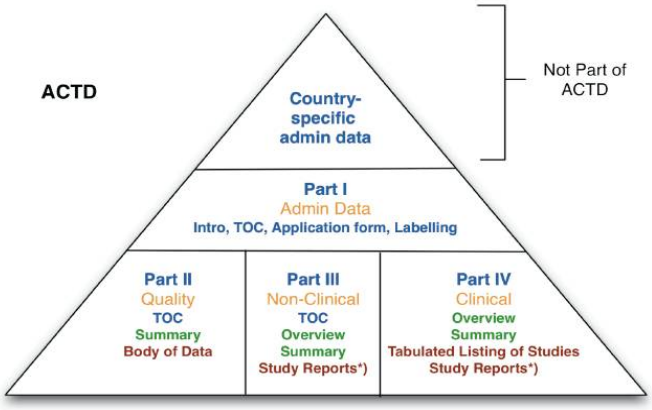

Fig. 1: organization of ACTD

Table 1: Difference of ACTD & ICH CTD

DOCUMENTS	LOCATION IN	
	ICH CTD	ACTD
Administrative Documents and Product Information	Module 1	Part I
Common Technical Document Overviewand Summaries Quality documents	Module 2	Incorporated in Parts II, III & IV
Quality documents	Module 3	Part II
Non-clinical documents	Module 4	Part III
Clinical documents	Module 5	Part IV

Table 2: General comparison of Asean countries

S NO	COUNTRY	VALIDITY	FORMAT FOLLOWED	FORMAT INCLUDED IN THESIS
1	Singapore	5 yrs	ACTD	ACTD
2	Malaysia	5 yrs	ACTD	ACTD
3	Thailand	5 yrs	ACTD	ACTD
4	Philippines		Country specific & ACTD	Country specific
5	Indonesia	5 yrs	ACTD	ACTD
6	Vietnam	5 yrs	ACTD	ACTD
7	Brunei Darussalam	5 yrs	ACTD	ACTD
8	Myanmar	5 yrs	Country specific & ACTD	Country specific
9	Cambodia	5 yrs	ACTD	ACTD
10	Laos	5 yrs	Country specific & ACTD	Country specific

COUNTRIES FOLLOW ONLY ACTD

Table 3: Comparison of Administrative documents in Asean countries

S.NO	ADMINISTRATIVE DOCUMENTS	SINGAPORE	MALAYSIA	THILAND	INDONESIA	VIETNAM	BRUNEI	CAMBODIA
1	Application Form	✓	✓	✓	✓	✓	✓	✓
2	Copy of valid certificate of brand Name clearance	✓	✓	✓	✓	✓	✓	✓
3	Certificate of Pharmaceutical product	✓	✓	✓	✓	✓	✓	✓
4	Free Sale Certificate	✗	✗	✗	✗	✗	✗	✗
5	Good Manufacture Practice	✓	✓	✓	✓	✓	✓	✓
6	License for pharmaceutical Manufacture	✓	✗	✓	✓	✓	✓	✓
7	Site Master File	✗	✗	✓	✓	✓	✓	✓
8	Permission for manufacturing & Marketing in country of origin	✗	✗	✗	✗	✗	✗	✗
9	Letter of Authorization	✓	✓	✓	✓	✓	✓	✓
10	Labeling Documents	✓	✓	✓	✓	✓		✓
11	Patent Information	✓	✗	✓	✓	✗	✓	✓
12	Summary Product Characteristics	✓	✓	✓	✓	✓	✓	
13	Patient Information Leaflet	✓	✓	✓	✗	✗	✗	✗
14	Product Information Already Approved In Any State /country	✓	✓	✗	✗	✗	✓	✗

Table 4: Technical documents comparison of Asean countries

TECHNICAL DOCUMENTS	SINGAPORE	MALAYSIA	THAILAND	INDONESIA	VIETNAM	BRUNEI	CAMBODIA
DRUG SUBSTANCE	✗	✗	✗	✗	✗	✗	✗
Quality overall summary	✗	✓	✓	✓	✓	✓	✓
General information	✗	✓	✓	✓	✓	✓	✓
Manufacture of Drug substance	✗	✓	✓	✓	✓	✓	✓
Characterization	✗	✓	✓	✓	✓	✓	✓
Quality control of drug substance	✓	✓	✓	✓	✓	✓	✓
Reference standards	✗	✓	✓	✓	✓	✓	✓
Container closure system	✗	✓	✓	✓	✓	✓	✓
Stability	✓	✓	✓	✓	✓	✓	✓
CEP (Certificate of European Pharmacopeia)	✓	✗	✗	✗	✗	✗	✗
Drug Master File	✓	✗	✗	✗	✗	✗	✗
DRUG PRODUCT							
Description &Composition	✗	✓	✓	✓	✓	✓	✓

Pharmaceutical Development	✓	✓	✓	✓	✓	✓	✓
Manufacture	✓	✓	✓	✓	✓	✓	✓
Quality Control of Excipients	✗	✓	✓	✓	✓	✓	✓
Quality Control of Finished Product	✓	✓	✓	✓	✓	✓	✓
Reference Standard	✓	✓	✓	✓	✓	✓	✓
Container Closure System / Packing	✓	✓	✓	✓	✓	✓	✓
Product Stability	✓	✓	✓	✓	✓	✓	✓
Product Interchangeability	✓	✓	✓	✓	✓	✓	✓

Table 5: Non clinical documents comparison of Asean countries

NON CLINICAL DOCUMENTS	SINGAPORE	MALAYSIA	THAILAND	INDONESIA	VIETNAM	BRUNEI	CAMBODIA
Non clinical overview	✗	✓	✓	✓	✓	✓	✓
Non clinical written & Tabulated summary	✗	✗	✗	✗	✗	✗	✗
Non clinical study Reports	✗	✗	✗	✗	✗	✗	✗
Literature references	✗	✗	✓	✓	✓	✓	✓

Table 6: CLINICAL DOCUMENTS COMPARISON IN ASEAN COUNTRIES

CLINICAL DOCUMENTS	SINGAPORE	MALAYSIA	THAILAND	INDONESIA	VIETNAM	BRUNEI	CAMBODIA
Clinical Overview	✗	✗	✓	✓	✓		✓
Clinical Summary	✗	✗	✗	✗	✗	✗	✗
Tabular Listing of All Clinical Studies	✗	✗	✗	✗	✗	✗	✗
Clinical Study Reports	✗	✗	Only BE	Only BE	Only BE	Only BE	Only BE
List of Key Literature	✗	✗	✓	✓	✓	✓	✓

Table 7: Countries following only regional format

S NO	DOCUMENTS	PHILIPPINES	MYANMAR	LAOS
	Application Form	✓	✓	✓
	Certificate Of Pharmaceutical Product	✓	✓	✓
	Site Master File	✗	✗	
	Summary of Product Characteristics/PI	✗	✗✗	
	GMP Certificate of API Mfr	✓	✗	✗
	Manufacturing License of FPP Mfr	✗	✓	✗
	Marketing Authorization In The Country of Origin/ FSC	✗	✗	✗
	WHO-GMP Certificate	✓	✓	✓
	Properties of API (Active pharmaceutical Ingredient)	✗	✓	
	Route of Synthesis of API	✗	✓	✓
	Process Validation of API	✗	✗	✓
	API Specification	✗	✓	✓
	API Certificate of Analysis	✓	✓	✓
	Stability Testing	✓	✗	✗
	Analytical Method Validation	✗	✗	✓
	Unit Dose & Batch Formula	✓	✗	✗
	Master Formula	✓	✓	✓
	Manufacturing Process	✓	✗	✓
	In-Process Specifications	✓	✓	✗

	PocessValridation Of FP	✗	✗	✗
	Monograph- Excipients	✓	✓	✓
	COA- Finished Pharmaceutical Product (Certificate of Analysis)	✓	✓	✓
	Specifications of Finished Pharmaceutical Product	✓	✓	✓
	Monograph of Finished Pharmaceutical Product	✓	✓	✓
	Analytical Method Validation	✓	✗	✗
	Container Closure System	✓	✓	✓
	Stability	✓	✓	✓
	Labels	✓	✓	✓
	Pharmacology, Toxicology	✗	✓	✗
	Raw Material Specifications	✓	✗	✓
	Product If Already Approved In Other Country	✗	✓	✓
	BE Requirements	✓	✗	✓

CONCLUSION

The purpose of the study is to compare generic drug registration and requirements in ASEAN countries & to find out the differences in guidelines.The focus on countries like Indonesia and Thailand is because of high population rate, maximum share of ASEAN pharmaceutical market, low income. But these countries are ranked after Vietnam and Philippines because of some restriction by countries government for foreign players. Singapore and Malaysia are the only countries in ASEAN, who have well established pharmaceutical regulations and more strict to quality & safety of drugs. These countries believe on innovation and give full protection to them. Hence there may not be many opportunities for small and medium scale generic companies in these countries unless their manufacturing procedures are well to do with regulatory requirements .This article gives a simplified overview of the Drug Regulatory Authority of 10 countries (ASEAN) and in detail registration requirements for filing a dossier for a generic drug product in the markets selected.

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