

# **STATUS OF AYURVEDIC MEDICINES AVAILABLE IN THE MARKETS OF NEPAL**

STUDY TEAM

**Dr. Shyam Mani Adhikari  
Dr. Bal Mukunda Regmi**

REPORT PREPARED BY

**Dr. Shyam Mani Adhikari**

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## Acknowledgement

A large number of Ayurvedic medicines have been being used in Nepal since the time immemorial. The popularity as well as market of Ayurvedic medicines has been increasing day by day. Though the raw materials for most of the Ayurvedic medicines are available within Nepal, most of the medicines in Nepalese market are imported from outside the country. On the other hand, as there is no laboratory facility or well established mechanism for standardization and monitoring so far within the country to assure and control the quality of such medicines, many questions are raised regarding the quality, safety and efficacy of these medicines. Hence, substandard Ayurvedic medicines also might have been brought to the market which not only defames Ayurvedic physicians and decreases faith to the Ayurveda but also creates a risk of public health hazards. It requires very urgent and serious multi-dimensional attempts by concerned authorities and other stakeholders to manage and regulate this situation.

In this context, present study was designed to identify and explore some of the issues and problems of Ayurvedic medicines available in the market of Nepal. We have also attempted to explore the situation of manufacturing and marketing practices in terms of packing, labeling and general properties of some common medicines, the basis of sale or consumption by the people, and recommended a few possible steps for ascertaining and maintaining quality, safety, efficacy and reliability of Ayurvedic medicines in Nepal.

We feel glad for gaining this opportunity to conduct study on 'Status of Ayurvedic Medicines Available

in the Market of Nepal'. We are hopeful that our evidence based effort to explore the present situation of Ayurvedic medicines in Nepalese market will contribute towards opening the eyes of concerned policy makers, planners, authorities, manufacturers, traders, consumers and other stakeholders. We also believe that data and information of this study will be useful for further study, policy making, planning and management of Ayurvedic medicines in the days to come.

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**Dr Shyam Mani Adhikari**

Principal Investigator  
(Email: drsmadhikari@gmail.com)

Dr Bal Mukunda Regmi  
(IOM/TU)

## Abbreviations

Ayu	Ayurveda/Ayurvedic	ml	milliliter
B. No.	Batch number	MRP	Maximum retail price
B.R.	Bhishajyaratnavali	N/no./No.	Number
Caps	Capsule	NA	Not applicable
CI	Contra-indications	NAF	National Ayurveda Formulary
cm	centimeter	NAMC	Nepal Ayurveda Medical Council
DDA	Department of Drug Administration	NHRC	Nepal Health Research Council
DHAC	District Ayurveda Health Centre	oz.	ounce
DoAy	Department of Ayurveda	P. + G. bottle	Plastic and Glass bottle
DW	Distilled water	P. bottle	Plastic bottle
Exp. date	Expiry date	P. pkt.	Plastic packet
Ext	External/externally	SDVKVS	Singhadurbar Vaidyakhana Vikas Samiti
G. bottle	Glass bottle	SF	Sugar free
g/gm	gram	sp. gr.	specific gravity
GMP	Good Manufacturing Practices	Sq. cm	Square centimeter
hrs.	hours	T/Tab./tab	Tablet
Int	Internal/internally	w/v	weight by volume
Mfg.	Manufacturing/Manufactured	ZAD	Zonal Ayurveda Dispensary
mg	milligram		

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## EXECUTIVE SUMMARY

A large number of Ayurvedic medicines have been being used in Nepal since the time immemorial. But, there is no mechanism for standardization and monitoring system developed so far to control the quality of these medicines within the country. There are many issues regarding the quality, safety and efficacy of these medicines which may be due to various problems prevalent in their production, prescription and marketing practices. Hence, substandard Ayurvedic medicines might have been brought to the market which is not only decreasing faith to the Ayurvedic medicines but also creating a risk of public health hazard and defaming Ayurvedic physicians and Ayurveda system as a whole.

This study was designed to explore status of Ayurvedic medicines available in the Nepalese market in terms of packing, label and general properties of some common medicines and to suggest possible steps for controlling and assuring the quality of these medicines.

Criteria for sample selection were simple and judgment. Three cities of Kathmandu valley and six other densely populated cities to represent all development regions were selected on the basis of number of Ayu medicine stores and transaction of medicines in those cities. Lists of top selling 10 Ayu medicines were collected from 87 medicine stores and detail list of information was collected from 26 stores among those.

Data about the name, form, packing size, basis of sale etc. of commonly available and top selling medicines were collected using two specific formats developed for the purpose. No secondary data were used.

Five medicines namely Avipattikara Churna, Triphala Churna, Chyavanaprasha Avaleha, Ashokarishta and Yogaraj Guggulu that were identified as top selling five classical Ayu medicines with four different types of preparations/formulations and therefore,

selected for the detail study. Altogether one hundred and twenty seven samples of these medicines representing various packing sizes and manufacturers were collected from retailers in Kathmandu valley.

Observation and study on packing, label and properties of the selected five classical medicines were conducted by direct observation and using some available tools and methods/measures like measuring tape, Vernier caliper, measuring cylinder, pan balance, electronic weighing machines, incubator, water bath, pH meter, refractometer and digital camera, as applicable.

Comparative studies on various samples were noted on the spot immediately after observation/test using specific formats/sheets and code. All the data were put into computer, edited as required, processed and analyzed with MS-excel and SPSS 10.0.

Among the total 6567 frequencies of name of medicines available in Nepalese market, 4848 (73.82%) were found manufactured by forty three Indian manufacturers and 1719 (26.18%) by forty two Nepalese manufacturers. The research found 1029 items of Ayu medicines among which 235 (22.84%) were only Nepali (manufactured within the country), 669 (65.01%) were only Indian and the remaining 125 (12.15%) were both Nepali and Indian manufacturers. Similarly, classical and patent medicines were found to be 458 (44.51%) and 571 (55.49%) respectively.

The study also identified 201 Ayu medicines as top selling items among 870 names collected from 87 medicine shops. Proportion of Nepali and foreign medicines has been found to be 353 (40.57%) and 517 (59.43%) respectively among 870 top selling items where as the proportion of classical and patent medicines has been found to be 601 (69.08%) and 269 (30.92%) respectively. Among the 201 different medicines, only Indian medicines were 106 (52.74%),

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only Nepali were 67 (33.33%) and both Indian and Nepali were 28 (13.93%) where as classical and patent medicines were found to be 118 (58.71%) and 83 (41.29%) respectively. Among the top selling items following eleven has been found as the most common ones:

1. Avipattikar Churna, 2 .  
Ashokarishta,
3. Triphala Churna, 4. Dashamularishta,
5. Chyavanaprash Avaleha, 6. Liv-52,
7. Kasturi Bhushan, 8. Yogaraj Guggulu,
9. Shuddha Shilajit,

10 Hingwashtak Churna, and 11 . S i t o p a l a d i Churna. It was found that Ayu medicines are mostly sold on the basis of demand (50.11%) followed by prescription (31.03%) and advice (18.85%).

The study revealed that there is no basis or similar criteria followed for packing and labeling of Ayu medicines available in the market of Nepal, whether manufactured by domestic or foreign manufacturers. The research also found marked differences in colour, taste, smell, fineness, pH, unit dose, etc. within the five classical medicines. There were big variations in quality among the same medicines manufactured by different manufacturers and even in different batches of the same manufacturer in some cases.

Although the study found so many variations regarding the production, prescription and marketing of Ayu medicines, they are still popular in the Nepalese as well as global markets. The efficacy and popularity of these medicines can be further increased if the quality and safety measures are assured through the development and adoption of standardization and quality control mechanisms.

# INTRODUCTION

## 2.1 Background

The popularity as well as market of Ayurvedic medicines have been increasing day by day. A large number of Ayurvedic medicines have been being used in Nepal since the time immemorial. Most of the traditional healers/practitioners are in remote areas where access to modern medical practitioners and/or medicines is limited. Also in the city areas, there are some traditional practitioners who diagnose, advise and provide medicines prepared by themselves to their clients/patients. Again, it is reported that there are some retailers/ medicine sellers who not only advise the medicine for patients/ customer but also change (give substitutes) the prescriptions made by qualified registered physician without giving prior information to the consumer and/or prescriber.

Though the raw materials for most of the Ayurvedic medicines are available within the country, most of the medicine raw materials available in Nepalese market are imported from outside the country. On the other hand, there is no laboratory facility or well established mechanism so far within the country to control and assure the quality of such medicines. In addition to this, most of the manufacturers do not have the knowledge on Good Manufacturing Practice (GMP). Hence, some substandard Ayurvedic medicines might have been brought to the market which is not only decreasing faith to the Ayurvedic medicines but also creating a risk of public health hazard and defaming Ayurvedic physicians and Ayurveda system as a whole.

There are many issues and valid complaints regarding the quality, safety and efficacy of Ayurvedic medicines which may be due to various problems prevalent in their production, storage, prescription and marketing aspects. To manage and regulate this situation, it

needs serious multi-dimensional attempts by the different stakeholders. In the context of Ayurvedic medicines, the responsible government authorities and institutions in Nepal like Department of Drug Administration (DDA), Department of Ayurveda (DoAy), Nepal Ayurveda Medical Council (NAMC), and Nepal Health Research Council (NHRC) do not seemed successful to perform their assigned responsibilities. Only a single study and the derived recommendations may not be sufficient to identify and address all the existing problems .

Except for some import, export and consumption scale based study, adequate research on the status of availability, quality of presentation/packaging, labeling and contents of Ayurvedic medicines have not been conducted so far by the Nepalese researchers, scientists, students, individuals or organizations. The present study was designed to identify some of the issues and problems of Ayurvedic medicines available in the market of Nepal. To some extent, it has attempted to explore situation of manufacturing practice, the basis of consumption by the people and recommend some possible steps for ascertaining and maintaining quality, safety, efficacy and reliability of Ayurvedic medicines.

## 2.2 Objectives of the study

**The objectives of this study were:**

1. To explore status of Ayurvedic medicines available in the Nepalese market in terms of packing, labelling and general properties of some common Ayurvedic medicines.
2. To recommend possible measures for controlling and assuring the quality of Ayurvedic medicines.

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## 2.3 Research questions

- 1.1 What are the commonly available Ayu Medicines in the market of Nepal and which of them are most common?
- 1.2 What are the proportions of classical and patent medicines; and domestic and foreign medicines available in Nepalese market?
- 1.3 On what basis the medical stores are selling or the patients are consuming the Ayu Medicines?
- 1.4 Are the same classical Ayurvedic medicines manufactured by different manufacturers similar in qualities and dosage form as they should be?
- 1.5 Are there some criteria or basis for packing and labeling of Ayu medicines?

- 2.1 What should be the possible steps to control and assure the quality of Ayu medicines?

## 2.4 Limitation of the study

This study was limited to Ayu medicines only. There were some limitations to conduct the study– time, budget, area, inadequate information or literature and also established method and/or facilities.

- Due to the limited time and budget, data and samples of medicines for detailed study were collected from the city areas only.

As it was a new attempt in this field, adequate literature, previous study reports and established methods and adequate facilities in the country were not easily available .

## METHODOLOGY

### 3.1 Study design

This is an explorative type of descriptive study where findings are based on one time data collected (from April-June, 2008) for the purpose.

For collection of data/information about the name, form, packing size, basis of sale etc. of Ayurvedic medicines from medical stores, check lists or formats were developed, and finalized after pre-testing. Then, different study areas were visited and information was collected using those formats as data collection tools. No secondary data were used. Information from each medical store were either noted by trained/oriented data collector or filled by shopkeeper him/herself in the specific forms/formats as preferred by the respondents. In some cases, reconfirmations were also done through revisit or telephone communication, as required.

Top selling 10 medicines were identified by analyzing the lists obtained from all parts of the studied area. Among those top selling 10 items, the most commonly used 5 classical Ayu medicines were selected for detail study in terms of packing, label and qualities.

### 3.2 Sampling and selection

In order to find out the most commonly used Ayu medicines & basis of their sale, a list of top selling 10 items were collected from 87 medicine stores of different parts of the country. (Annex-3)

For this purpose, three cities of Kathmandu valley and six other densely populated cities to represent all development regions were selected on the basis of number of Ayu medicine stores, and consumption or transaction of medicines in those cities (Table 1):

**Table 1: Medicine stores selected for data collection of common Ayu medicines**

S. N.	Name of the City	No. of Medicine Stores	Region
1	Biratnagar	9	Eastern
2	Kathmandu	24	Central
3	Lalitpur	7	Central
4	Bhaktapur	7	Central
5	Birgunj	9	Central
6	Pokhara	17	Western
7	Nepalgunj	7	Mid-western
8	Dhangadhi	4	Far-western
9	Mahendranagar	3	Far-western

Criteria for selection of medical stores and sample size (no. of medical stores) for detail and top selling 10 items was based on the following factors together with accessibility, feasibility and judgment in particular city:

- Information given by Ayu physicians of the concerned DAHC or ZAD, local medicine wholesaler, retailers and other key informants.

- Medical stores having at least 20 varieties of Ayu medicines in case of top selling 10 items and a large variety of Ayu medicines in case of detail data/information collection.

- Different parts or areas within the city

City wise or overall top selling Ayu medicines were identified by thorough analysis of all the data collected for study from above mentioned 87 medical stores of 9 cities of different areas of the country.

The data source was also used to find out the basis of sale (Annex-5) and five classical Ayu medicines were selected for detailed study on packing, label and properties of the medicines from the same data source.

Five classical medicines which were found within the eight most common in merit list of top selling medicines and also represent four different types of formulations were selected for detail study (Table 2).

**Table 2: Classical medicines selected for detail study**

S. N.	Name of Medicine	<i>Type of Formulation</i>
1	Avipattikar Churna	Churna (powder)
2	Triphala Churna.	Churna (powder)
3	Chyavanaprash Avaleha	Arishta (alcoholic/liquid preparation)
4	Ashokarishta	Avaleha (lickable paste)
5	Yogaraj Guggulu	Vati/Chakrika (tablet/pills)

### 3.3 Field operation

Field operation was performed in three phases:

- Collection of data/information from different parts/cities of the country.
- Collection of samples from the market.
- Observation and comparative study of the collected samples.

#### 3.3.1 Collection of data/information from different parts/cities

One resource person with a data collector visited the medicine shops with the specific check lists or

forms to collect data about the name, form, packing size, manufacturer, basis of sale etc. Two different types of formats were used as data collection tools (Annexes-1&2).

Information were either noted/filled by data collector or filled by the shopkeeper him/herself as preferred by the particular participant. No secondary data were used. In some cases, reconfirmation were also done through revisit or telephone communication.

#### 3.3.2 Collection of samples from the market

Samples of selected 5 classical medicines were directly purchased from retail medicine shops while a few of them were requested or ordered and received after a few days.

Collection of almost all samples of different packing sizes of maximum number of manufacturers was attempted, which were easily available without prescription mainly from retailers in local market of Kathmandu valley.

Samples of the selected classical medicines for detail study manufactured by as many manufacturers as possible and as many packing sizes as available were directly bought from the different retailers in the Kathmandu valley.

#### 3.3.3 Observation and comparative study

Observation and comparative study of the collected samples were conducted by direct observation and using some available methods/measures on following aspects:

- Comparative study on packing,
- Comparative study on label
- Comparative study of some of the physical properties.

##### 3.3.3.1 Comparative study on packing

Study on packaging and presentation of each samples were performed by direct observation as mentioned below:

- Gross weight & net content as per label.
- Material, capacity (in ml), colour, height & circumference, weight excluding medicine (in gm) of the container.
- Material, colour, logo or identification mark, of cover/cap and seal.

Above observations and measurements were conducted also with the help of tools and equipments like measuring tape, scale, Vernier caliper, measuring cylinder, electronic weighing machines etc., as applicable.

### 3.3.3.2 Comparative study on label

To study the labels and descriptions mentioned on the label, each sample was performed by direct observation as mentioned below:

- Material, colour, height/width/length of the label.
- Languages and colours of letters.
- Mention of following descriptions:

- |   |                             |
|---|-----------------------------|
| (a) Name of   | (b) Quoted Reference        |
| (c) Quantity  | (d) Ingredients/Composition |
| (e) Indication/Uses   | (f) Method of Use           |
| (g) Dose and course   | (h) Precautions, CI         |
| (i) Manufactured Date   | (j) Expiry Date             |
| (k) Batch No.   | (l) Mfg License No.         |
| (m) Price   | (n) Name of Manufacturer    |
| (o) Address of Manufacturer   |                             |
| (p) Logo/Identification Mark  |                             |
| (q) Picture, Diagram or Others  |                             |
| (r) Other Information   |                             |
| (s) Unit dose (i.e.: weight per tablet/pills) in case of Yogaraj Guggulu. |                             |

### 3.3.3.3. Comparative study of properties

Study on the following physical, organo-leptic and chemical properties of the samples were performed:

- Net quantity (gm, ml or no.)
- Colour, smell, taste, form, shape, size, fineness, consistency, texture, homogeneity, uniformity as applicable.
- w/v, sp. gr., pH, sediment percent (in 1:10 DW solution).
- Sugar content of Avipattikar, Chyavanaprash and Ashokarishta; tannin content of Triphala; and unit dose and hardness of Yogaraj Guggulu were also studied.

Studies were done on randomly selected packing size of sample medicine in case of the same batch no. from the same manufacturer.

- The weight of each original sample pack was measured and recorded as the gross weight.
- Net weight of the medicine in each sample was measured with the help of an electronic digital balance (for weight < 500 gm) and ordinary physical pan balance (for weight > 500 gm).
- Ten tablets of Yogaraj Guggul were randomly selected from each sample pack, weighted and weight per tablet/pill was calculated.
- Volume of each sample was measured using measuring cylinder of different capacities (all BOROSIL) as appropriate to the volume to be measured.
- Colour, smell, taste, form, texture, uniformity, homogeneity were directly observed by respective sense organs and were noted accordingly.
- To find out the fineness of Avipattikar and Triphala Churna, 50 gm powder from each sample was sieved separately through a standard wire mesh (sieve no. 52). The unfiltered material on the sieve was weighed, recorded and residue percent was calculated.
- To observe the weight and volume ratio, volume of 50 gm Chyavanaprash and 5 gm Yogaraj Guggulu from each sample pack were separately measured using measuring cylinder containing 50 ml of DW. In case of Avipattikar and Triphala Churna, such volumes of each weighed sample units were separately observed by pouring into a measuring cylinder in a uniform manner. Similarly, weight of 100 ml of Ashokarishta was also taken.
- To find out the solid matter content in Ashokarishta, 20 ml from each sample was taken in different porcelain basins and weighed (W1) separately. They were evaporated in water bath, and dried in an incubator at 80°C for 3 hours. Again, the weight after drying (W2) was measured and the percentage of solid content was calculated based on the following formula:

$$\% \text{ of solid content} = 100 - \left[ \frac{W1 - W2}{W1} \times 100 \right]$$



- 
- Sugar content of Ashokarishta was measured with the help of Refractometer.
  - To find out the sediment ratio of Ashokarishta, 50 ml of sample was kept into a measuring cylinder, left for 2 hours, the volume of sediment measured and the sediment percent calculated.
  - pH of the Ashokarishta was directly measured with the help of pH paper.
  - 5 gm medicines from each samples of Avipattikar, Triphala, Chyavanaprash and Yogaraj Guggulu were dissolved in 50 ml distilled water (DW). The solutions were left for two hours and the volume of sediment was measured and sediment ratio calculated. pH of the solutions was measured using pH paper. Sugar content in the solutions of Avipattikar and Chyavanaprash was measured with the help of refractometer. Similarly, in order to confirm tannin content in Triphala, 5 ml of its solution was taken into test tube and few drops of ferric chloride was added into it; blue-black precipitate confirmed the tannin content.
  - 5 gm of each sample units of Avipattikar, Thiphala and Chyavanaprasha were kept into an incubator for three hours at 80°C temperature and weight of each samples were again measured after drying. The difference in initial weight and after drying were recorded and loss on drying % (LOD%) was calculated.
  - 10 gm from each sample units of Chyavanaprash (heated upto 60°C) were spread on 25 sq. cm (5 cm × 5 cm) area of blotting paper and again the blotting paper with the samples was placed over approximately 2 gm of tissue paper for twenty hours. After 20 hrs, each sample was scrapped and weighed separately. The difference in weight between two measurements was calculated as loss by absorption.
  - Hardness of tablets and pills of Yogaraj Guggulu were measured using a Tablet Hardness Tester. The average value of three readings was recorded as the hardness value.
  - Photographs of collected samples before opening their contents and during some of the test procedures were also taken by digital camera.
- Findings were noted immediately in specific sheets/ formats developed for the specific purpose.

### 3.4 Data management

Filled formats or data sheets were collected by resource persons through data collectors and filed safely. All the data were then put into computer, edited as required, processed and analyzed with MS-excel and SPSS 10.0. Filled data sheets regarding the packing, label and properties of medicines were received from study site and analyzed.

### 3.5 Ethical consideration

The purpose, scope, use of study, methods, related institution and approximate time of engagement for this study were politely informed to the respondents and participants. Personal introduction of researchers and data collectors, objective, rationale of research etc. were also described as and where they put interest.

All the data are based on the information obtained from the personnel of each medical store. Information was either noted by data collector or filled by participants him/herself as preferred by shopkeeper in the specific forms/formats.

Comparative studies on various samples were noted on the spot immediately after observation/test using specific formats/sheets and code. In case of property of medicines, name of the manufacturers has not been mentioned in the report.



## LITERATURE REVIEW

Ayurvedic medicines are of two kinds: (i) Shastriya or classical and (ii) Anubhuta or patent. Classical Ayu medicines are those which are formulated or prepared as per the authoritative texts and patent are those which are based on Tarakib, tradition, experience or proprietary.

Department of Drug Administration (DDA) and Department of Ayurveda (DoAy) have identified the list of authoritative texts for this purpose. In addition to this, DoAy has been publishing different parts of National Ayurveda Formulary (NAF) since last four years which contains the authoritative formulae of Ayu medicines for Nepal.

Classical Ayu medicines can be prepared or manufactured by many manufacturers by the same name, but they must quote the name of authoritative text on which the formulation is based. One can not change the composition (contents or ingredients with their specific part/s and proportion) and basic method of preparation which may cause alteration in quality, efficacy and safety of the particular medicine. Hence, these medicines which bear the same name should also contain the same composition, have

the same properties and perform same actions in general either prepared or marketed by any of the manufacturer, distributor or retailer and prescribed or provided by any physician.

**Churna** is a fine powder of a Dravya/s or drug/s. Dravyas to be powdered are cleaned and dried properly. They are finely powdered by pounding in a mortar with a pestle or by disintegrator and sieved through 80 mesh sieve. When a number of drugs are in a formulation, they are separately powdered, sieved, weighed separately and mixed together. Depending upon the formulation and therapeutic indications, it is administered with specific Anupana (vehicle) e.g. milk, butter milk, honey, ghee, water etc. Churnas are kept in airtight containers and generally used within two months.

**Avipattikar Churna (B.R.)** is a very famous classical Ayurvedic medicine widely used in cases of hyperacidity, gastritis, stomach pain, constipation etc. in specific dose. It is prepared by combination of the specific parts of 14 Dravyas in fixed proportion (Table 3).

**Table 3: Composition of Avipattikar Churna**

Name	Part/s Used	Proportion	Name	Part/s Used	Proportion
Shunthi	Rhizome	1	Vidanga	Fruit	1
Maricha	Fruit	1	Ela	Seed	1
Pippali	Fruit	1	Patra	Leaf	1
Haritaki	Fruit pulp	1	Vidalavana	-	1
Vibhitaka	Fruit pulp	1	Lavanga	Flower bud	11
Amalaki	Fruit pulp	1	Trivrit	Root bark	44
Musta	Rhizome	1	Sharkara	-	66

**Triphala Churna (B.R.)** is one of the most common classical Ayurvedic medicine widely used as a laxative and a general tonic in specific dose. It is prepared by combination of fruit pulps of Haritaki, Vibhitaka and Amalaki in equal proportion.

**Avaleha/Leha** is a semisolid preparation of drugs prepared with jaggery/sugar/sugar candy and juice or decoction of prescribed drug. These preparations generally comprise of Kwatha (decoction) or other liquids, jaggery/sugar/sugar candy, powder or pulp of certain drugs, ghee and/or oil, and honey. A properly prepared Avaleha has following properties in general: (i) can be lifted in a spoon as treacle, (ii) shows thread like appearance when pressed or stretched

between fingers, (iii) sinks in water without getting easily dissolved, and (iv) fingers leave impressions on it. They are to be kept in an inert container made of glass, porcelain jars or suitable metallic or high quality plastic pots. Normally they should be used within one year.

**Chyavanaprasha Avaleha (B.R.)** is a very famous classical Ayurvedic medicine widely used as a multiplex nutritive tonic for the people of all age groups and causes nourishing, strengthening, rejuvenating and blood purifying effects. It is prepared by combination of the specific parts of 50 different Dravyas in fixed proportion (Table 4).

**Table 4: Composition of Chyavanaprash Avaleha**

Name	Part/s Used	Proportion	Name	Part/s Used	Proportion
Amalaki	Fruit pulp	50	Bhumyamalaki	Whole plant	1
Bilwa	Root	1	Jivanti		1
Agnimantha	Root	1	Nilotpala	Flower	1
Shyonaka	Root	1	Raktachandana	Heartwood	1
Gambhari	Root	1	Kakanasika		1
Patala	Root	1	Mudgaparni	Whole plant	1
Shalaparni	Root	1	Mashaparni	Whole plant	1
Prishniparni	Root	1	Jivaka	Root	1
Brihati	Root	1	Rhishabhaka	Root	1
Kantakari	Root	1	Rhiddhi	Root	1
Gokshura	Root	1	Vridhhi	Root	1
Bala	Root	1	Meda	Root	1
Pippali	Fruit	1	Mahameda	Root	1
Karkatashringi	Insect gall	1	Kakoli	Root	1
Pushkaramul	Root	1	Kshherakakoli	Root	1
Shati	Rhizome	1	Ghrita	-	6
Vasa	Leaf	1	Tila	Oil	6
Vidarikanda	Tuber	1	Madhu	-	6
Draksha	Dried fruit	1	Sitopala	-	50
Punarnava	Root	1	Vamshalochana	-	4
Musta	Rhizome	1	Pippali	Fruit	2
Sukshmaila	Seed	1	Twak	Stem bark	1
Aguru	Heartwood	1	Ela	Seed	0.25
Haritaki	Fruit pulp	1	Patra	Leaf	0.25
Guduchi	Stem	1	Nagakeshara	Flower aril	0.25

**Asavas and Arishtas** are medicinal preparations made by soaking the powdered drug or decoction in a solution of jaggery for a specified period of time. Fermentation that sets in, generates alcohol which facilitates extraction of the active principles of the drugs and also serves as a preservative. Preparations made by using decoction are called Arishtas and other as Asavas. Asavas and Arishtas should be clear, without any froth or sediments and should not be

sour. They are stored in well stopper glass bottles in cool places and can be stored for indefinite period.

**Ashokarishta (B.R.)** is a very popular classical Ayurvedic medicine among Nepalese women. This is widely used in cases of leucorrhoea, metrorrhagia, dysmenorrhoea, uterine dysfunction and other menstrual disorders. It is prepared by combination of the specific parts of 14 Dravyas in fixed proportion (Table 5).

**Table 5: Composition of Ashokarishta**

Name	Part/s Used	Proportion	Name	Part/s Used	Proportion
Ashoka	Stem bark	1	Triphala	Fruits	1
Guda	-	1	Daruharidra	Root bark	1
Dhataki	Flower	16	Nilotpala	Flower	1
Jeeraka	Fruit	1	Amra	Seed pulp	1
Krishnajeeraka	Fruit	1	Vasa	Leaf	1
Shunthi	Rhizome	1	Raktachandan	Heartwood	1
Musta	Rhizome	1	Sharkara	-	116

**Vati and Chakrika** are the preparations having specific unit dose in round pills or tablet form. One or more Dravyas of plant, mineral or animal origin are powdered, sieved, mixed with prescribed liquids and triturated till it attains the consistency suitable for making pills or tablet. Sugandhi (fragrant) Dravyas if mentioned are powdered separately and mixed before making pills or tablets. They are dried under shade or sun and stored in airtight containers. The preparations containing Dravyas of only plant origin

can be used for two years while those containing minerals and metals can be used for indefinite period.

**Yogaraj Guggulu (B.R.)** is one of the most reputed classical Ayurvedic medicine having anti-inflammatory, anti-cholesterolaemic, hypolipidaemic and anti-arthritis effects. It is prepared by combination of the specific parts of following 28 Dravyas in fixed proportion (Table 6)

**Table 6: Composition of Yogaraj Guggulu**

Name	Part/s Used	Proportion	Name	Part/s Used	Proportion
Haritaki	Fruit pulp	1	Jeeraka	Fruit	1
Vibhitaka	Fruit pulp	1	Krishnajeeraka	Fruit	1
Amalaki	Fruit pulp	1	Usheera	Root	1
Shunthi	Rhizome	1	Davadaru	Heartwood	1
Maricha	Fruit	1	Kushta	Rhizome	1
Pippali	Fruit	1	Talisapatra	Leaf	1
Pippalimul	Root	1	Dhanyaka	Fruit	1
Chitrakamul	Root	1	Ajamoda	Fruit	1
Chavya	Stem	1	Yavani	Fruit	1
Musta	Rhizome	1	Gokshura	Fruit	1
Vidanga	Fruit	1	Rasna	Root	1

Ela	Seed	1	Yavakshara	-	1
Patra	Leaf	1	Saindhava	-	1
Twak	Stem bark	1	Guggulu	Purified resin	27

In case of classical Ayu medicines, there is scope for possibility to obtain similar or near identical findings. For this, on the other hand, following 10 factors regarding the Dravya should be considered as mentioned in Charak Samhita, Vimanasthan, Chapter 8/87:

- i. Prakriti (proper identification and suitability);
- ii. Guna (properties and qualities);
- iii. Prabhava (specific potency and effect);
- iv. Desha (habitat and place of origin);
- v. Rhitu (season and time of collection);
- vi. Grihita-vidhi (method of collection);
- vii. Nihita-vidhi (method, condition and duration of storage and preservation);
- viii. Upaskrita-vidhi (method and situation of formulation and preparation or processing);
- ix. Matra (quantity of each and total ingredients and unit as well as total dose); and
- x. Vyadhi (disease/disorders or indications and condition of Dosha).

## RESULT AND DISCUSSION

### 5.1 Status of Ayu medicines available in Nepalese markets

The research found 1029 items of Ayu medicines in 16 different forms among which 235 (22.84%) were only Nepali (manufactured within the country), 669 (65.01%) were only Indian and the remaining 125 (12.15%) were both Nepali and Indian (Fig.- 1).

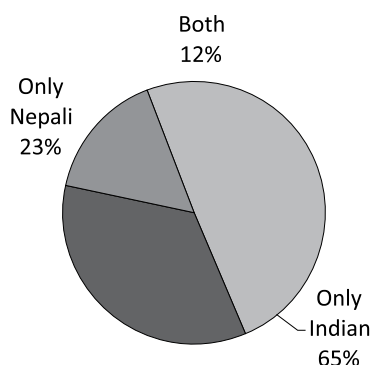


Figure 1: Classical vs. Patent Ayu medicines

Similarly, classical and patent medicines were found to be 458 (44.51%) and 571 (55.49%) respectively (Fig. - 2). Most of the medicines were found in tablet form followed by powder, syrup and so on (Table 7). Medicines of same forms were found to be packed in different types of container and packing sizes details of which are presented in table 7. The name lists of the 1029 medicines are presented in Annex- 6

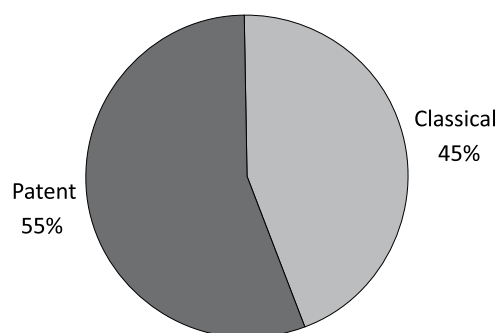


Figure 2: Countrywise items of Ayu medicine

Among the total 6567 frequencies of medicines, 4848 (73.82%) were found manufactured by forty three Indian manufacturers and 1719 (26.18%) by forty two Nepalese manufacturers. However Indian (43) and Nepali (42) manufacturers were found about equal in number, the frequency of Indian medicines was found quiet high (73.82%) in Nepalese market (Fig -3).

Mfg. date and batch no. were found on the label of most of the manufacturers where as only 52.9% manufacturers were found mentioning expiry date on the label of all medicines manufactured by them. Some (5.9%) manufactures mentioned expiry date in some of their medicines and did not mentioned in others.

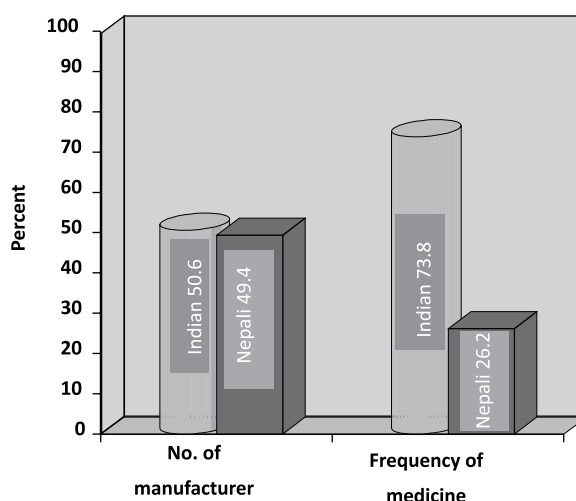
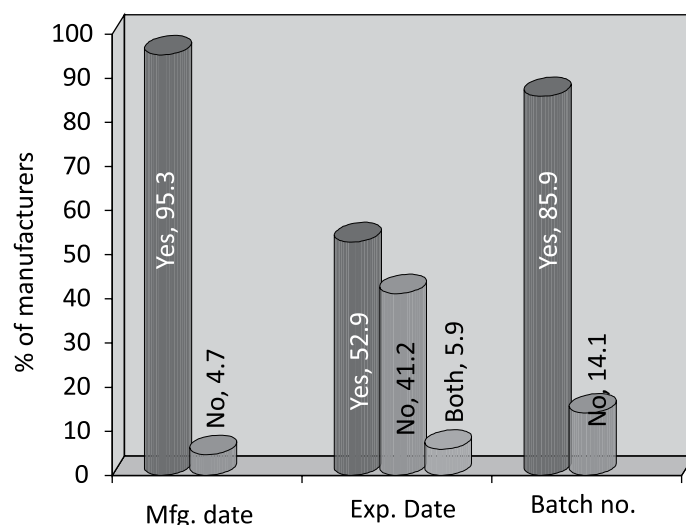


Figure 3: Country wise no. of manufacturers and frequency of their medicines

**Table 7: Types of container, packing sizes and country of manufacture of various forms of Ayu medicines**

Forms of medicine	No. of items	Packing size		Type of container	Frequency		
		No.	Range		Indian	Nepali	Total
Arishta	27	5	200 ml to 680 ml	G. Bottle	343	27	370
Asava	28	10	15 ml to 680 ml	G. Bottle, P. Bottle	227	35	262
Bhasma	41	11	125 mg to 25 gm	G. Bottle, P. Bottle	193	26	219
Capsule	73	13	2 Caps to 100 Caps	G. Bottle, P. Bottle, P. Pouch, Strip	350	79	429
Gel	2	2	150 gm & 450 gm	G. Bottle	10	-	10
Granule	11	8	50 gm to 500 gm	G. Bottle, P. Bottle	51	5	56
Liquid	17	12	5 ml to 450 ml	G. Bottle, P. Bottle	73	28	101
Oil	122	18	2 ml to 400 ml	G. Bottle, P. Bottle	392	99	491
Ointment	46	14	5 gm to 200 gm	G. Bottle, P. Bottle, Tube	120	31	151
Paste	21	14	10 gm to 1000 gm	G. Bottle, P. Bottle, Tube	65	45	110
Pills	63	21	1 gm to 100 gm & 20 Pills to 120 Pills	G. Bottle, P. Bottle, Strip	207	24	231
Pisti	10	6	500 mg to 10 gm	G. Bottle, P. Bottle	42	2	44
Powder	179	27	1 gm to 500 gm	Cardboard, G. Bottle, P. Bottle	419	738	1157
Syrup	174	23	5 ml to 750 ml	G. Bottle, P. Bottle, Pet Bottle	769	204	973
Tablet	343	39	1 gm to 100 gm & 4 Tab to 400 Tab	G. Bottle, P. Bottle, Strip	1582	376	1958
Tablet+Oil	1	1	15 ml + 40 Tab	P.+G. Bottle	5	-	5
<b>Total</b>					4848	1719	6567



**Figure 4: Manufacturers mentioning Mfg. date Exp. date & Batch no. on label**

Most (83.6%) of the medicines available in Nepalese market were found for internal use where as 16.2% were for external use and only 0.2% were for both internal and external use (Table 8).

**Table 8: Type of medicines according to route of use**

S. N.	Route of use	Total frequency	Items	
			Frequency	Percent
1	Internal	5911	860	83.6
2	External	649	167	16.2
3	Both (Internal + External)	7	2	0.2
<b>Total</b>		6567	1029	100

annex-5.

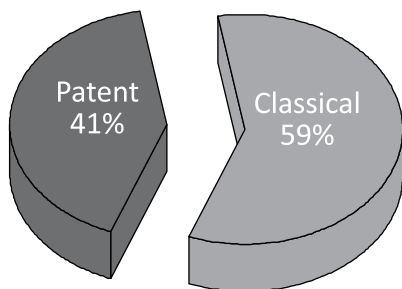


Figure 5: Types of common Ayu medicines

## 5.2 Status of Common Ayu medicines in Nepal

### 5.2.1 Type and country of manufacturer

Altogether 201 Ayu medicines were found out as common medicines among 870 names collected from 87 medicine shops. Nepali and foreign medicines were 353 (40.57%) and 517 (59.43%) respectively whereas the classical and patent medicines were found to be 601 (69.08%) and 269 (30.92%) respectively. Among the 201 different medicines, 106 (52.74%) were only Indian, 67 (33.33%) were only Nepali and 28 (13.93%) were both Indian and Nepali (Fig-6). Similarly, classical and patent medicines were found to be 118 (58.71%) and 83 (41.29%) respectively (Fig-5).

Among the 201 medicines, name, type and country of manufacturer of the twenty five has been presented in table 9 in order of their commonness. The name of 201 medicines with their city-wise frequency, type and country of manufacturer has been given in

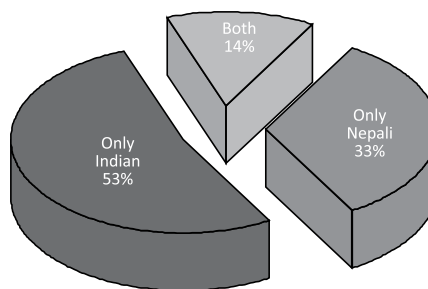


Figure 6: Country wise items of common Ayu medicines

**Table 9: Type & country of manufacturer of common Ayu medicines**

S. N.	Name of Medicine	Type	Total frequency	Nepali	Indian
1	Avipattikar Churna	Classical	73	61	12
2	Ashokarishta	Classical	68	5	63
3	Triphala Churna	Classical	57	35	22
4	Dashamularishta	Classical	47	1	46
5	Chyavanaprash Avaleha	Classical	32	10	22
6	Liv-52	Patent	29	-	29
7	Kasturi Bhushan	Classical	21	21	-
8	Yogaraj Guggul	Classical	21	8	13
9	Shuddha Shilajit	Classical	19	17	2
10	Hingwastak Churna	Classical	18	12	6
11	Sitopaladi Churna	Classical	18	15	3

12	Ashwagandha Churna	Classical	15	10	5
13	Janma Ghunti	Patent	15	3	12
14	Kumaryasava	Classical	13	3	10
15	Shankha Bhasma	Classical	12	6	6
16	Chandraprabha Vati	Classical	10	2	8
17	Honitus	Patent	10	-	10
18	Lavanabhaskar Churna	Classical	10	5	5
19	Mahayogaraj Guggul	Classical	10	-	10
20	Ashwagandharishta	Classical	9	-	9
21	Mahanarayan Tel	Classical	9	1	8
22	Abhayarishta	Classical	8	1	7
23	Ajawain Tel	Patent	8	8	-
24	Lohasava	Classical	8	-	8
25	Rohitakyadi Churna	Classical	8	8	-

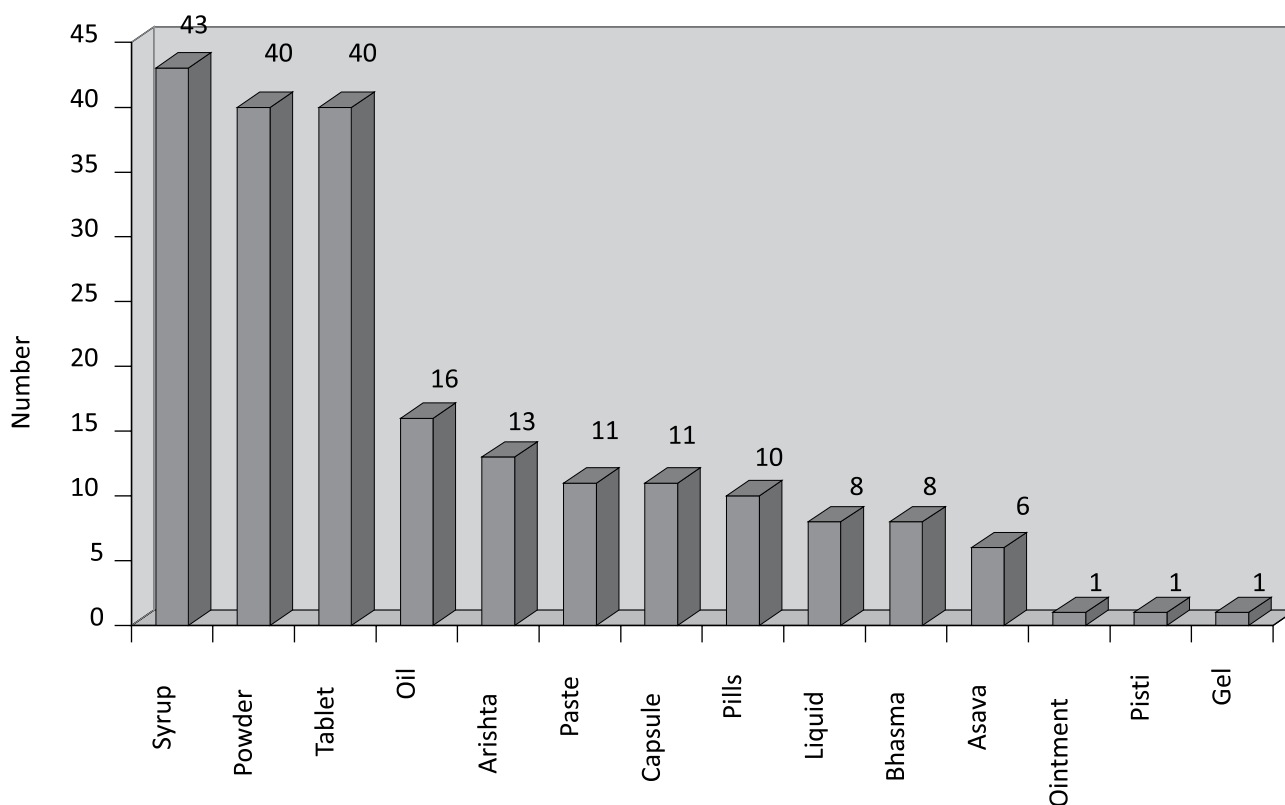


Figure 7: Forms of common Ayu medicines

### 5.2.2 Forms of medicines

Fourteen different types of dosage forms were found within the common Ayurvedic medicines (Fig-7). Most of the medicines were in syrup, powder and tablet forms. Very few medicines were found in ointment, pisti and gel forms among common Ayurvedic medicines.

### 5.2.3 Types of container and packing sizes

Eight different types of container were found (Fig- 8) among which most of the medicines were packed in glass (43%) and plastic (42.1%) bottles. Very few medicines were found packed in tin box (0.4%), pet bottle (0.4%), Nepali paper (0.4%), and cardboard (1.3%).



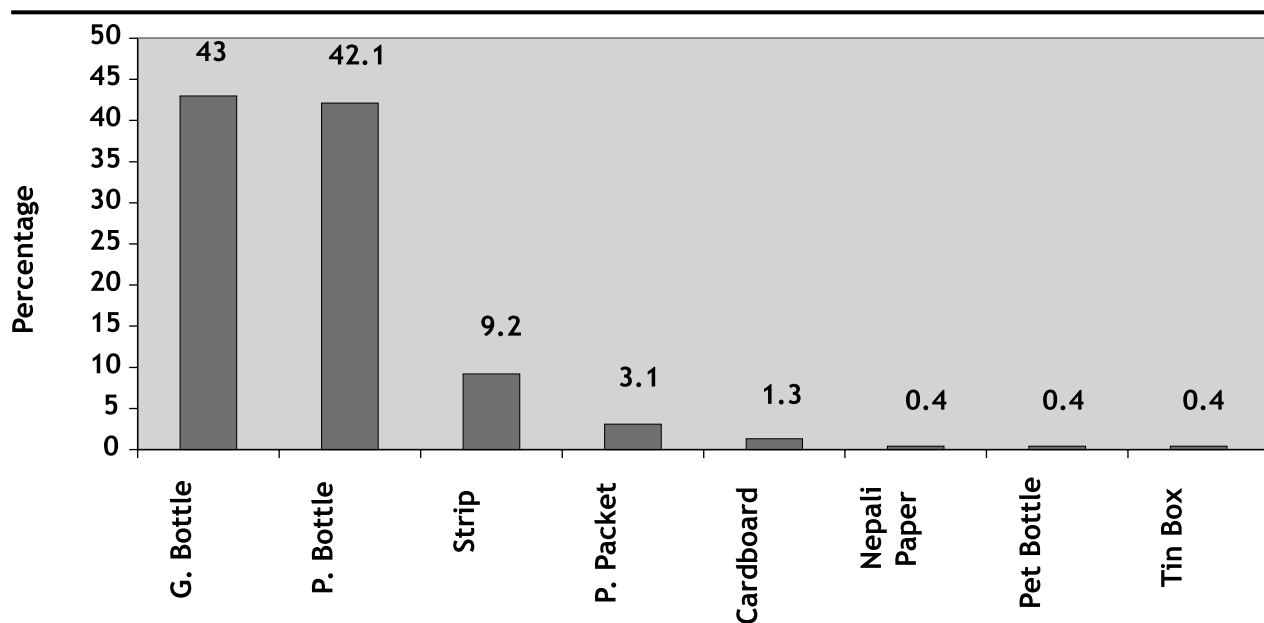


Figure 8: Container types of common Ayu medicines

All medicines in Arishta and Asava forms were found to be packed in glass bottle where as Bhasma, Pisti, Oil, Ointment, Paste, Gel were in both glass bottle and plastic bottle. In addition to glass and plastic bottles, liquid and syrup were found in pet bottles; and powder in cardboard, Nepali paper, and tin box. Similarly tablet, capsule and pills were also found to be packed in plastic packet and strip (Table 10). Quiet variations were observed in packing sizes of each form of medicines which are summarized in Table 10.

**Table 10: Container types and packing sizes of different forms of Ayu medicines**

Forms of medicine	Container	Packing sizes
Arishta/Asava	G. Bottle	15 ml, 30 ml, 40 ml, 60 ml, 400 ml, 450 ml, 500 ml, 680 ml, 16 oz.
Bhasma/Pisti	G. Bottle	10 gm
	P. Bottle	5 gm, 10 gm, 15 gm, 25 gm, 50 gm, 100 gm
Oil/Ointment/Paste/ Gel	G. Bottle	10 gm, 30 gm, 100 gm, 200 gm, 400 gm, 450 gm, 5 ml, 10 ml, 15 ml, 30 ml, 50 ml, 60 ml, 100 ml, 4 oz., 12 oz.
	P. Bottle	40 gm, 50 gm, 100 gm, 150 gm, 250 gm, 500 gm, 1000 gm, 60 ml, 100 ml, 200 ml
Powder	Cardboard	35 gm, 100 gm
	G. Bottle	10 gm, 50 gm, 60 gm, 100 gm
	Nepali Paper	5 gm
	P. Bottle	10 gm, 12 gm, 20 gm, 25 gm, 30 gm, 50 gm, 60 gm, 80 gm, 100 gm, 120 gm, 125 gm, 200 gm, 250 gm, 300 gm, 600 gm, 1000 gm
	P. Packet	25 gm, 40 gm, 50 gm, 100 gm,
	Tin Box	100 gm
Liquid/Syrup	G. Bottle	10 ml, 15 ml, 30 ml, 50 ml, 60 ml, 80 ml, 100 ml, 110 ml, 120 ml, 125 ml, 170 ml, 200 ml, 225 ml, 400 ml, 450 ml, 500 ml
	P. Bottle	100 ml, 120 ml, 200 ml, 450 m,
	Pet Bottle	200 ml

Tablet/Pill/Capsule	G. Bottle	1 gm, 10 tab, 20 tab, 10 caps, 20 caps, 30 caps
	P. Bottle	2 gm, 5 gm, 7 gm, 8 gm, 10 gm, 20 gm, 25 gm, 40 gm, 50 gm, 100 gm, 40 tab, 60 tab, 80 tab, 100 tab, 120 tab, 60 caps
	Strip	10 tab, 30 tab, 60 tab, 70 tab, 10 caps, 12 caps, 15 caps
	P. Packet	10 gm

### 5.2.4 Basis of sale

Medicines are sold either on demand of the consumer or on the prescription by physician or on advice of the shopkeeper. In general, Ayu medicines in Nepal were found mostly to be sold on the basis of demand (50.11%) followed by prescription (31.03%) and advice (18.85%) (Fig.-9). But, the situation is not same in case of all medicines. Basis of sale for top selling eleven medicines has been presented in figure 10. Suddha Shilajit was found to be sold mostly on prescription (89.5%) of physician and very few of them were sold on advice of shopkeeper and demand of consumer. Similarly, other medicines to be sold mostly on prescription were: Liv-52, Sitopaladi, Yogaraj Guggulu and Hingwashtak Churna. On the other hand, Chyavanaprash (84.4%) was found to be sold mostly on demand of consumer and very few (3.1%) on prescriptions. Similarly other medicines to be sold mostly on demand were: Dashamularishta, Ashokarishta, Triphala, Kasturi Bhushan and Avipattikar. None of these medicines were found to be sold on advice of shopkeeper. Very few (5.6%) of Sitopaladi and Suddha Shilajit (5.3%) were found to be sold on advice.

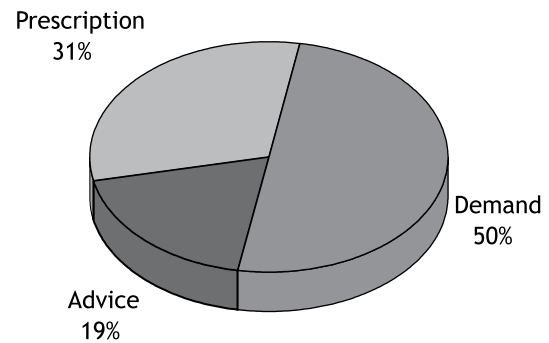


Figure 9: Basis of sale of common medicines

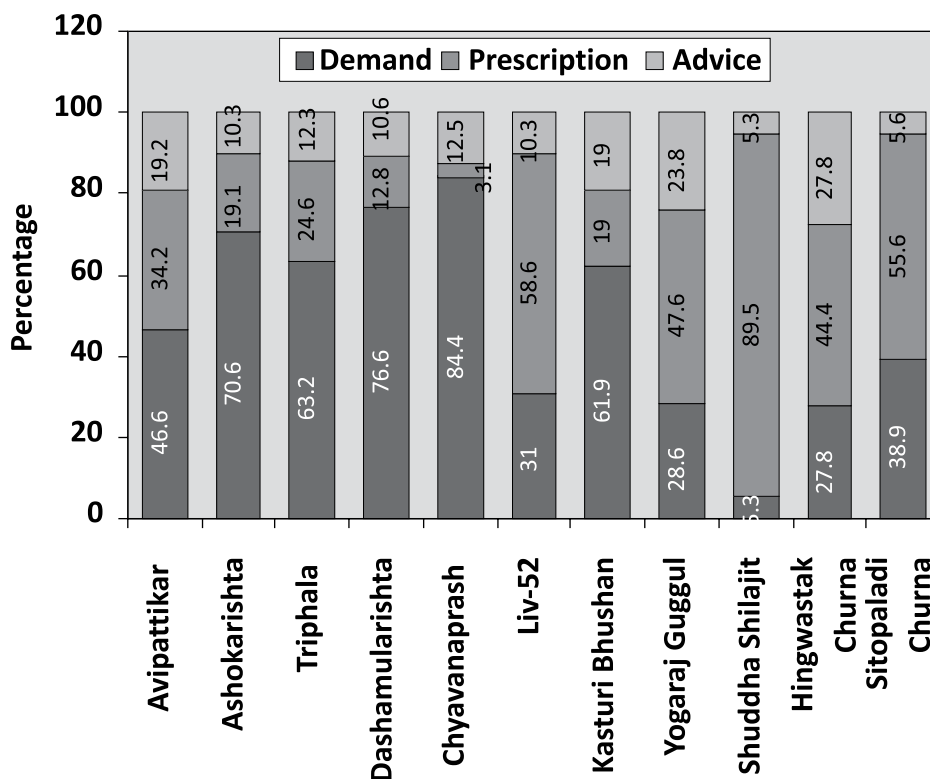


Figure 10: Basis of sale of top selling Ayu medicines

## 5.3 Status of packing, labeling and properties of selected classical medicines

### 5.3.1 Characteristics of sample

127 samples of five classical medicines of different packing sizes manufactured by twenty six different manufacturers as presented in Table 11.

**Table 11: Characteristics of samples of classical medicines selected for detail study**

Name of medicine	No. of sample	No. of manufacturer	No. of packing size	Packing sizes
Avipattikar	39	22	8	50 gm, 60 gm, 100 gm, 120 gm, 200 gm, 250 gm, 300 gm, 400 gm
Triphala	27	18	9	60 gm, 80 gm, 100 gm, 120 gm, 125 gm, 200 gm, 250 gm, 300 gm, 500 gm
Chyavanaprash	28	16	4	250 gm, 450 gm, 500 gm, 1000 gm
Ashokarishta	14	12	2	450 ml, 680 ml
Yogaraj Guggulu	19	12	10	10 gm, 20 gm, 25 gm, 30 gm, 50 gm, 100 gm, 30 tab, 60 tab, 120 tab, 400 tab
Total	127	26		

### 5.3.2 Packing of medicine

Study/observation of type, size/capacity of container and sealing was conducted to find out the current practice on packaging of medicines in relation to type and quantity of medicine; and the findings are summarized in Table 12.

**Table 12: Capacity (in ml), type of container and seal**

Name of medicine	Sample size	Container type	Seal type	Volume (ml) of container per 100 gm/ml medicine		
				Minimum	Maximum	Mean
Avipattikar	36	P. bottle	Al. foil, P. plug, Plastic	139	316.7	225.1
	2	G. bottle	Al. cap			
	1	P. packet	Plastic			
Triphala	27	P. bottle	Al. cap, Al. foil, Plastic	112.5	300	202.8
Chyavanaprash	27	P. bottle	Al. foil, Plastic	83	124.4	97.7
	1	G. bottle	Plastic			
Ashokarishta	13	G. bottle	Al. cap	100	116.7	107.2
	1	Pet bottle	Al. cap			
Yogaraj Guggulu	18	P. bottle	Al. foil	162	376	262.6
	1	Blister strips	Strip			

Most of the medicines in powder, paste and tablet/pills were found packed in plastic bottles where as some of them except Yogaraj Guggulu were in glass bottles. Yogaraj guggulu was found to be packed

in blister strip as well. Avipattikar Churna was also found in plastic packets which were kept into paper bags. It was even found in simple polythene bags without label. Similarly, most of the Ashokarishta

representing syrup forms were found in glass bottles and some in pet bottles.

Quiet variation was observed in the size of container in relation to the quantity of medicine. Similarly, different types of seal were found used in same type of containers and medicines (Table 12).

Table 13 describes the status of using logo (on cap or seal) while packing medicines. Logo on cap was found in 50.4% of the samples where as 48% samples were without logo on their cap. Analysis of logo on cap was not applicable in case of two (1.6%) samples which were packed in strip and plastic packet. Similarly, 64.6% samples were found with logo on their seal and remaining 35.4% were without logo on the seal.

**Table 13: Status of using logo in cap and seal**

S. N.	Name of medicine	Logo on cap			Logo on seal		Total
		Yes	No	NA*	Yes	No	
1	Avipattikar	14	24	1	17	22	39
2	Triphala	13	14	0	15	12	27
3	Chyavanaprash	17	11	0	22	6	28
4	Ashokarishta	10	4	0	10	4	14
5	Yogaraj Guggulu	10	8	1	18	1	19
Total		64 (50.4%)	61 (48%)	2 (1.6%)	82 (64.6%)	45 (35.4%)	127 (100%)

\*NA = not applicable

Thus, the study found no common criteria or practice followed by the manufacturers in packaging of Ayu medicines.

### 5.3.3 Label of medicine

Study about the material, size and color of label of each samples were conducted to explore the current practice of labeling in relation to the size and type of container. Likewise, comparative study on description

mentioned on label of each samples was carried out thoroughly.

#### 5.3.3.1 Material of label

Variations were observed on the type (material) of label for same type of medicine and container except in case of Ashokarishta. Ashokarishta was found with label printed only on paper where as other medicines (having frequency >1) were found with label printed on 2-3 types of materials (Table 14).

**Table 14: Type of label according to container type**

Name of Medicine	Total frequency	Container		Type of Label
		Type	No.	
Avipattikar Churna	39	Plastic bottle	36	Paper, Plastic, Container itself
		Glass bottle	2	Paper
		Plastic packet	1	No label
Triphala Churna	27	Plastic bottle	27	Paper, Plastic
Chyavanaprash Avaleha	28	Plastic bottle	27	Paper, Plastic, Container itself
		Glass bottle	1	Paper
Ashokarishta	14	Glass bottle	13	Paper
		Pet bottle	1	Paper
Yogaraj Guggulu	19	Plastic bottle	18	Paper, Container itself
		Blister strips	1	Strip itself

### 5.3.3.2 Color of label

Variations were also observed in color of letters and background of labels. Some of the manufacturers have used only one color while others have used two or three or more colors on the label. Medicine wise detail of color used in label and background of label is presented in the Table 15.

**Table 15: Color of background and letter on label**

Name of Medicine	Background Color	Letter color				Total
		One	Two	Three	Multi	
Avipattikar Churna	One	3	7	-	-	10
	Two	1	10	12	-	23
	Three	-	-	2	-	2
	Multi	-	-	3	-	3
	Total	4	17	17		38
Triphala Churna	One	5	3	2	-	10
	Two	-	6	2	2	10
	Three	-	1	6	-	7
	Total	5	10	10	2	27
Chyavanaprash Avaleha	One	-	3	2	1	6
	Two	-	-	7	3	10
	Three	-	1	6	2	9
	Multi	-	-	-	3	3
	Total		4	15	9	28
Ashokarishta	One	-	-	1	-	1
	Two	1	4	2	1	8
	Three	-	1	2	-	3
	Multi	-	1	1	-	2
	Total	1	6	6	1	14
Yogaraj Guggulu	One	-	6	3	-	9
	Two	-	6	1	-	7
	Three	-	-	2	1	3
	Total		12	6	1	19

### 5.3.3.3 Languages in label

Most of the Nepali manufacturers have used both Nepali and English languages whereas few of them have used only Nepali on the label. In case of Indian manufacturers, all of them have used Hindi and English languages on the label (Table 16). The information provided on the label of Indian medicines may not be understood by a majority of the Nepalese consumers.

**Table 16: Languages used in labels**

S. N.	Company	Language	Frequency	Percent
1	Nepali	Nepali and English	82	65.1
		Nepali	2	1.6
2	Indian	Hindi and English	42	33.3
Total			126	100.0

### 5.3.3.4 Size of label

The size of label was compared with the size of container. The height of the label was found varying from 25% to 98.7% of the height of container. Similarly, circumference/breadth of the label varied from 31.1% to 112.5% of the circumference. In case

of one sample of Yogaraj Guggulu, a label with many folds was found which measured 279.6% of the circumference of the container when it was unfolded. Thus, no specific criteria was found regarding the size of label in relation to the size and type of container. The range of height and circumference percent covered by the label is presented in Table 17.

**Table 17: Range of height & circumference percent covered by label**

S. N.	Name of medicine	N	Height %		Circumference %	
			Minimum	Maximum	Minimum	Maximum
1	Avipattikar Churna	38	34.4	70.0	31.1	112.5
2	Triphala Churna	27	38.0	68.6	42.3	110.1
3	Chyavanaprash Avaleha	28	34.5	98.7	62.9	112.3
4	Ashokarishta	14	32.8	61.6	48.5	98.7
5	Yogaraj Guggulu	18	25.0	70.2	41.7	279.6*

\*Folded label attached on container

### 5.3.3.5 Description on label

The details of information mentioned on the label of each type of medicines have been presented in Table 18. Name of medicine and name of manufacturer were found on label of all samples. Some of the manufacturers have added their name together with the name of classical medicines as brand name. Reference, quantity, use, method of use, dose, price, batch no., manufactured date, name, address and logo of manufacturer were found in more than 75% of samples. But, there is no similarity in language and spelling of reference texts and in some cases irrelevant reference was also found, e.g. *Atisara Rogadhikara* and *Vata Rogadhikara* on the label of two packing sizes of Yogaraj Guggulu manufactured by the same company (Fig.- 11 ). Batch numbers were found unclear and difficult to read in many cases. In some cases, same batch no. was printed on labels of drugs manufactured in different dates.

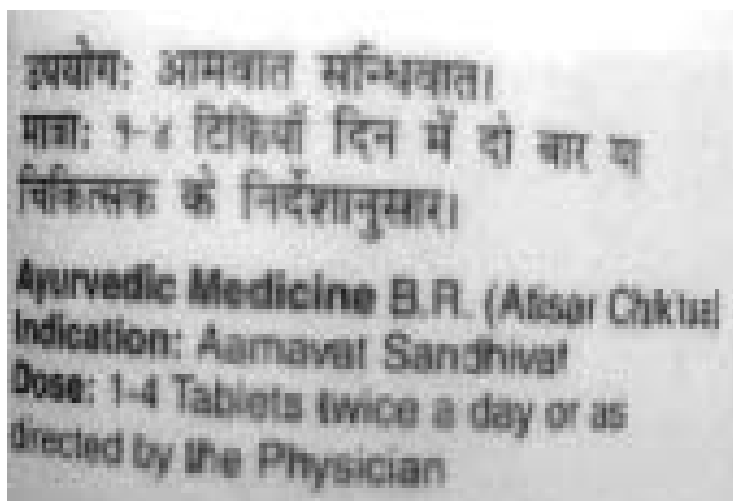


Figure 11: Irrelevant reference mentioned on label of Yogaraj Guggulu

Manufacture licence no., precaution and/or other information and figure and/or other marking were found in 73.8%, 69% & 68.3% respectively. Similarly, composition or ingredients of medicine was mentioned in 48.4% and expiry date was mentioned in only 31.7 % of sample. No reliable logic and similarity was found in expiry dates mentioned for a particular medicine manufactured by different manufacturers. For example, expiry date for Avipattikar Churna was found to be mentioned one year in some samples and upto two years in others. Quantity of per tablet/pill of Yogaraj Guggulu was mentioned only in 15.8% and no similarity was found where it was mentioned (Table 18).

**Table 18: Status of information mentioned on label**

S. N.	Description	Avipattikar		Triphala		Chyavanaprash		Ashokarishta		Yogaraj Guggulu		Total %	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	Name of medicine	38	0	27	0	28	0	14	0	19	0	100	0
2	Reference	32	6	20	7	13	15	12	2	19	0	76.2	23.8
3	Quantity	33	5	25	2	27	1	12	2	19	0	92.1	7.9
4	Per Unit Quantity	-	-	-	-	-	-	-	-	3	16	15.8	84.2
5	Composition	15	23	16	11	21	7	4	10	5	14	48.4	51.6
6	Use of Medicine	38	0	25	2	23	5	12	2	16	3	90.5	9.5
7	Method of Use	27	11	17	10	24	4	14	0	15	4	77.0	23.0
8	Dose of Medicine	37	1	25	2	27	1	13	1	14	5	92.1	7.9
9	Price of Medicine	33	5	25	2	25	3	12	2	19	0	90.5	9.5
10	Batch Number	31	7	23	4	24	4	11	3	19	0	85.7	14.3
11	Licence Number	24	14	19	8	22	6	11	3	17	2	73.8	26.2
12	Manufactured Date	33	5	24	3	24	4	11	3	18	1	87.3	12.7
13	Expiry Date	12	26	10	17	10	18	3	11	5	14	31.7	68.3
14	Figure or Other Marking	30	8	12	15	26	2	10	4	8	11	68.3	31.7
15	Name of Manufacturer	38	0	27	0	28	0	14	0	19	0	100	0
16	Address of Manufacturer	35	3	27	0	27	1	14	0	19	0	96.8	3.2
17	Logo	26	12	20	7	22	6	13	1	18	1	78.6	21.4
18	Precaution and Other Information	23	15	17	10	24	4	12	2	11	8	69.0	31.0

Variations were also found in information mentioned on labels of the same medicine. No consistency and reliable logic was found in dose and method of use, e.g. per day maximum dose of Avipattikar was found to vary from 1 (manufacturer A) to 6 (manufacturer D) teaspoonful (Table 19). Similarly, no similarity was found in indication/uses of medicines and precaution and other information as mentioned in Table 19.

**Table 19: Example of variations on information mentioned on label**

Manufacturer	Indications/uses	Dose and method of use	Precaution & other information
A	अम्लपित्त एवं परिणाम शूल	¼-½ चम्मच (1-3 ग्राम) दिन में दो बार या चिकित्सक के निर्देशानुसार ।	Ayurvedic Medicine Keep in a cool & dry place.

B	अम्लपित्त, छाती, घाँटी पोल्ने, वाक्वाक, वमन, अरुची, अजीर्ण, अपच तथा कब्जियतमा उपयोगी । Useful for gastric, Hyper acidity, nausea, vomiting, indigestion & constipation.	१-१ चम्चा बिहान बेलुका पानीसँग खाने वा चिकित्सकको सल्लाहानुसार । 1 teaspoonful twice a day with water or as directed by the physician.	Ayurvedic Medicine Spices, fats, dry and heavy food should be avoided.
C	Useful in hyperacidity and constipation.	As directed by the physician.	Ayurvedic Medicine Keep in a cool & dry place.
D	अम्लपित्त, वाक्वाकी, अजीर्ण, अरुची, अपच आदिमा । Hyperacidity, nausea, vomiting, indigestion, loss of appetite, constipation etc.	1-2 teaspoonful 2-3 times a day with water or as directed by the physician. १-२ चियाचम्चा दिनको २-३ पटक पानीसँग अथवा चिकित्सकको परामर्श अनुसार ।	घाम र ओसबाट बचाउनुहोस् र बच्चाहरुको पहुँचबाट टाढा नै र खनुहोस् ।।
E	अजीर्ण, अरुची, अम्लपित्त, अमिलो पानी आउने, छाती पोल्ने, वाक्वाक आउने, वायु शुल, गानुगोला आदिमा उपयोगी । Dyspepsia, Flatulence, Hyperacidity, for Undigestion, Vomiting, Constipation, Heart burning etc.	३-६ ग्राम अनुपान, सहपान, नरिबल पानी, दूध वा मनतातो पानीसँग दिनको दुई पटक । 3-6 gms. with Water or Milk twice a day.	आयुर्वेदिक चिकित्सकको सल्लाह अनुसार । Consult with Ayurvedic Physician.
F	यो औषधि सेवन नियमित सेवन गर्नाले पेट पोल्ने, मुखबाट अमिलो तितो पानी आउने, डकार आउने, पेट फुल्ने, दुख्ने, गुल्म वायुगोला, गानु आदि पेटका रोगहरु निको हुन्छ ।	दिनमा २ या ३ पटक तातो पानीसँग खाने अथवा चिकित्सकको परामर्श अनुसार ।	आयुर्वेदिक औषधि ।

Thus, it was revealed that there is no similarity in current practice for using label and criteria to be described in label (description to be given/mention in label).



## 5.4 Properties of medicines

### 5.4.1 Avipattikar Churna

The properties of the Avipattikar Churna are presented in Table 20 and 21. The study found variations in fineness, pH, sugar content, moisture content (LOD%), color, smell, taste and other properties studied during the study. Therefore, it is revealed that there is no similarity in composition (in constituents, quality and/or proportion) and/or method of preparation.



**Table 20: Descriptive statistics of Avipattikar Churna (Sample size=39)**

S. N.	Description	Minimum	Maximum	Mean	Range
1	Volume of 25 gm medicine (ml)	54	68	59.79	14
2	Percent of remainder*	0.2	13.8	4.26	13.6
3	Sediment % in solution **	1.89	9.43	4.52	7.55
4	pH of solution	4.5	5	4.72	0.5
5	Sugar % in solution	4.1	6.9	5.5	2.8
6	Loss % after drying	1	10	3.33	9

\*unfiltered materials from sieve (52 mesh), \*\* solution of 5 gm medicine + 50 ml distilled water

**Table 21: Physical & organo-leptic properties of Avipattikar Churna**

Description	Type	Frequency	Percent
Characteristics of remainder	Coarse powder	36	92.3
	Coarse powder + splinter	3	7.7
Physical change in medicine	Bolus formed	9	23.1
	No change	30	76.9
Color of medicine	Brown	2	5.1
	Cream	5	12.8
	Creamy white	25	64.1
	Yellowish brown	7	17.9
Smell of medicine	Light	20	51.3
	Moderate	15	38.5
	Strong	4	10.3
Taste of medicine	Bitter + sweet	16	41
	Bitter+sweet+salty	2	5.1
	Sweet+bitter	21	53.8

### 5.4.2 Triphala Churna

The study found variations in fineness, pH, moisture content (LOD%), color, smell, taste and other properties of Triphala Churna (Tables 22 & 23). Therefore, it was revealed that there is no similarity in composition (in constituents, quality and/or proportion) and/or method of preparation.



**Table 22: Descriptive statistics of Triphala Churna (Sample size=27)**

S. N.	Description	Minimum	Maximum	Mean	Range
1	Volume of 25 gm medicine (ml)	45	68	53.07	23.00
2	Percent of remainder*	0	24.2	7.15	24.20
3	Sediment % in solution **	13.21	26.92	19.45	13.72
4	pH of solution	3.5	4	3.57	0.50
5	Loss % of weight on drying	1	8	4.26	7.00

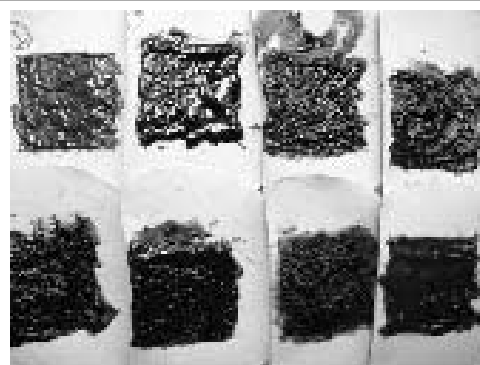
\*unfiltered materials from sieve (52 mesh), \*\* solution of 5 gm medicine + 50 ml distilled water

**Table 23: Physical & organo-leptic properties of Triphala Churna**

Description	Type	Frequency	Percent
Characteristics of remainder	Coarse powder	23	85.2
	No remainder	4	14.8
Physical change in medicine	Whole sticky	1	3.7
	Bolus formed	1	3.7
	No change	21	77.8
	Sticky at the bottom	4	14.8
Color of medicine	Brown	2	7.4
	Dark	1	3.7
	Yellow	24	88.9
Smell of medicine	Light	22	81.5
	Strong	5	18.5
Taste of medicine	Astringent+sour	17	63
	Sour+astringent	10	37
Color of solution	Brown	11	40.7
	Cream	10	37
	Dark brown	6	22.2
Tannin content in solution	Yes	27	100

### 5.4.3 Chyavanaprash Avaleha

The properties of the Chyavanaprash Avaleha are presented in Tables 24 and 25. There are variations in fineness, sugar content, fat content, moisture content (LOD%), color, smell, taste and other properties studied during the study. Therefore, it is concluded that there is no similarity in composition (in constituents, quality and/or proportion) and/or method of preparation.



**Table 24: Descriptive statistics of Chyavanaprash Avaleha (Sample size=28)**

S. N.	Description	Minimum	Maximum	Mean	Range
1	Volume of 25 gm medicine (ml)	17	18	17.50	1
2	Sediment % in solution*	5.7	24.5	16.23	18.9
3	Sugar % in solution	5	10	6.95	5
4	Fat % in solution	0.37	5.56	1.37	5.19
5	% of weight loss after absorption**	14	44	30.86	30
6	Loss % of weight on drying	2	14	6.86	12

\* solution of 5 gm medicine + 50 ml distilled water \*\*absorption for 20 hrs on blotting & tissue paper

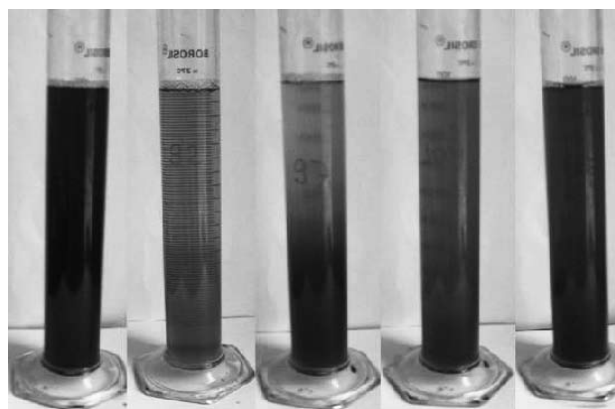
**Table 25: Physical & organo-leptic properties of Chyavanaprash Avaleha**

Description	Type	Frequency	Percent
Taste of medicine	Sour+sweet	11	39.3
	Sweet	3	10.7
	Sweet+sour	14	50
Smell of medicine	Mild specific	20	71.4
	Other mixed	3	10.7
	Strong specific	5	17.9
Fineness of medicine	Fine	7	25
	Granulated	7	25
	Markedly granulated	6	21.4
	Very fine	8	28.6
Colour of medicine	Black	5	17.9
	Brown	4	14.3
	Dark brown	14	50
	Redish brown	5	17.9
Colour of solution	Dark brown	4	14.3
	Redish brown	15	53.6
	Yellowish	4	14.3

	Yellowish brown	5	17.9
Thickness of medicine	High	7	25
	Medium	18	64.3
	Semi solid	3	10.7

#### 5.4.4 Ashokarishta

The properties of Ashokarishta are given in Tables 26 and 27. Variations in fineness, pH, sugar content, solid content, color, smell, taste and other properties studied were found during the study. Therefore, there is no similarity in composition (in constituents, quality and/or proportion) and/or method of preparation.



**Table 26: Descriptive statistics of Ashokarishta (Sample size=14)**

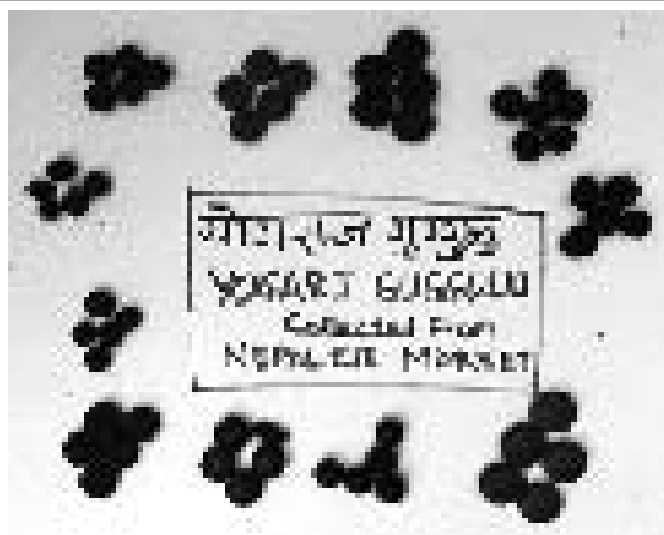
S. N.	Description	Minimum	Maximum	Mean	Range
1	Weight of 100 ml medicine (gm)	99	113.2	105.62	14.7
2	Sediment % in medicine	1	9	3.71	8.5
3	Sugar % in medicine	3	34.1	18.15	30.7
4	pH of medicine	3	5	3.71	2
5	Solid content (in gm) in 100 ml of medicine	4	38	23.61	34

**Table 27: Physical & organo-leptic properties of Ashokarishta**

Description	Type	Frequency	Percent
Taste of medicine	Bitter+sweet	3	21.4
	Sour+bitter	1	7.1
	Sour+sweet	3	21.4
	Sweet	7	50
Smell of medicine	Mild alcoholic	5	36
	Moderate alcoholic	6	43
	Strong alcoholic	3	21
Color of solution (10mlwater+90ml medicine)	Brown	3	21.4
	Brownish red	4	28.6
	Dark red	4	28.6
	Yellowish red	3	21.4

### 5.5.5 Yogaraj Guggulu

The properties of the Yogaraj Guggulu are presented in Tables 28 and 29. There are variations in average weight per tablet/pill, hardness or friability of tablets/pills, pH, colour, smell, taste and other properties studied during the study. Most of the pills (84.2%) were found without coating whereas some of them (15.8%) were coated. Hence, it is revealed that there is no similarity in composition (in constituents, quality and/or proportion) and/or method of preparation.



**Table 28: Descriptive statistics of Yogaraj Guggulu (Sample size=19)**

S. N.	Description	Minimum	Maximum	Mean	Range
1	Volume of 10 tablets/pills	3	6	3.47	3
2	Average weight per tablet/pill (mg)	245	700	422	455
3	Hardness of tablets/pills	2	7.66	4.58	5.66
4	Sediment % in solution*	16.98	47.17	22.86	30.19
5	Sp. Gravity of solution	1.17	1.25	1.22	0.08
6	pH of solution	2	7	4.16	5

\* solution of 5 gm medicine + 50 ml distilled water

**Table 29: Physical & organo-leptic properties of Yogaraj Guggulu**

Description	Type	Frequency	Percent
Colour	Black	10	52.6
	Brownish black	6	31.6
	Shiny black	2	10.5
	Shiny brown	1	5.3
Smell	Mild	13	68.4
	Odourless	3	15.8
	Strong	3	15.8
Taste	Bitter	2	10.5
	Bitter+salty	9	47.4
	Salty+bitter+pungent	7	36.8
	Sour+salty	1	5.3
Variation in shape and size of tablets/pills	No	6	31.6
	Yes	13	68.4

Fragmentation	>5%	1	5.3
	1 - 5%	5	26.3
	No	13	68.4
Variation in weight	>5%	8	42.1
	0-5%	11	57.9
Coating of tablets/pills	No	16	84.2
	Yes	3	15.8
Colour of solution	Ash	3	15.8
	Black	1	5.3
	Dark brown	9	47.4
	Light brown	6	31.6

## CONCLUSION & RECOMMENDATION

### 6.1 Conclusion

Detail list of most of the Ayurvedic medicines available in Nepalese market has been prepared and among them common medicines have been identified and their current status has been explored.

The medicines are available in various forms and packing sizes. Most of the medicines are in the form of powder, syrup, tablet/pills/capsule form, paste/ointment/gel. They are available for both internal and external uses, but most of them are for internal use.

Nepali and Indian manufacturers of Ayu medicines available in the Nepalese markets are nearly equal in number, but the Indian products are dominating the Nepalese market. Similarly, classical items are more in number but patent items are dominant in the market.

Most of the Ayu medicines are sold on demand of consumers without the prescription of registered physicians and only some of them are consumed on prescription of the physician. Similarly, only a few medicines are consumed on advice of the retailers/shopkeepers.

There are many variations in packaging, labeling and properties among the same medicines manufactured by not only different manufacturers but also within the medicines of different batches of the same manufacturers. Same type and quantity of medicines are available in different types as well as capacities of containers. Similarly, there is no consistency and even unreliable logic in some cases in the information mentioned on label.

The exact reason behind variations in properties is yet to be explored as they depend on various factors like variations in quality/proportion of raw materials,

composition of medicines, scale of production, method of preparation, packing, storage and so on. Hence, it needs further exploration on reason behind the dissimilarities among the properties of the same medicines. There is no effective mechanism so far in Nepal to control the quality of Ayurvedic medicines.

However there are so many issues regarding the production, prescription and marketing of Ayu medicines, they are popular in Nepalese as well as in global market. The efficacy and popularity of these medicines will further be increased if the quality and safety measures are assured. Therefore, it needs serious attempts to standardize and control the quality of Ayu medicines by concerned authorities so that quality of the medicines as well as the effective health services can be assured.

### 6.2 Recommendations

1. Further research is recommended to develop standard parameters for quality assurance of Ayu medicines. Modern technologies should also be applied as and when required.
2. There should be coordinated efforts by DDA, DoAy, NHRC and NAMC in developing standard parameters regarding quality assurance, packing and labeling of medicines as well as the determination of the shelf lives of medicines .
3. GMP guideline for Ayu medicines should be developed in consultation with experts and be implemented.
4. Separate unit of Ayurveda with a team of experts in Ayurvedic sector should be developed in Department of Drug Administration for identification, effective supervision and monitoring of the issues

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concerned in Ayu medicines. Similarly, separate unit should be established in DoAy for quality control and development of medicinal plants, other medicinal raw materials and Ayurvedic medicines .

5. As mentioned in National Ayurveda Health Policy 2052, an Ayurvedic Medicine Examination Committee and laboratory should be developed to examine the quality of Ayurvedic medicines
6. Ethical guidelines regarding practices of Ayu medicines should be prepared and it should be effectively implemented by the Nepal Ayurved Medical Council.
7. Manufacturers, retailers, practioners and other stakeholders including citizen society and people in general should be made aware of the issues regarding the practice of manufacture, consumption, prescription and quality of Ayu medicines.

## REFERENCES

- Astangagasangraha Sutrasthana*, written by Vriddha Vagbhata and Nepali and English Translation by Adhikari S.M., Nepal Sanskrit University, 2004.
- Ayurvedic Products of SDVKVS*, Singhadurbar Vaidyakhana Vikas Samiti, Anamnagar, Kathmandu 1999 (Dhanwantari Jyanti, 2056 B.S.).
- Ayurvediya Anusandhana-Paddhati*, written by Sharma P.V., Chaukhambha Orientalia, Varanasi, India, 1976.
- Bhaisajya-ratnavali* with Vidyotini Hindi commentary (11<sup>th</sup> ed.) by Shastri A. D., Ed. By Shastri R.D., Chaukhambha Sanskrit Sansthan, Varanasi.
- Bhaisajyaratnavali*, written by Govindadas, Expounded by Brahma Shankhar Mishra, Chaukhambha Sanskrit Sansthan, Varanasi, 2035 B.S.
- Charaka Samhita* with English Translation & Critical Exposition (Vol. I-1983,) Sharma R. K. & Dash B., Chowkhambha Sanskrit Series Office, Varanasi.
- Charaka-Samhita-English Translation & Critical Notes*, with commentaries of Jejjata, Chakrapani, Gangadhara & Yogindranath Vol. I, by Sharma, P.V., Chaukhambha Orientalia, Varanasi, 1994.
- Dravyaguna Vijnana- Part I*, Adhikari S.M., Sajha Prakashan, Pulchowk, Lalitpur, Nepal, 2062 B.S.
- Parameters for Quality Assessment of Ayurveda and Siddha Drugs- Part A*, Central Council for Research in Ayurveda & Siddha, Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India, New Delhi, 2005.
- Pharmacognosy of Indigenous Drugs*, Compiled & Ed. by K. Raghunathan & Miss Roma Mitra, CCRAS, New Delhi.
- Pharmacopoeial Standards for Ayurvedic Formulations*, Ed. by Raghunathan K., Central Council for Research in Indian Medicine & Homoeopathy, New Delhi – 24, India, 1976.
- The Ayurvedic Formulary of Nepal*, First Part, Government of Nepal, MOHP, DoAy, Kathmandu, 2061 B.S.



# ANNEXES 1

## Formats used for data/information collection for top selling items

औषधि पसलको नाम :

ठेगाना :

पसल सञ्चालन वर्ष :

### सबैभन्दा बढी परिमाणमा बिक्री हुने १० औषधिहरुको विवरण

क्र.सं.	औषधिको नाम र स्वरूप	एकाई परिमाण	प्याकिङ्ग/ प्रस्तुति	उत्पादकको नाम, ठेगाना	बढी बिक्रीको मुख्य आधार (१,२,३)			कै.
					प्रेस्क्रिप्सन	माग	सल्लाह	

**द्रष्टव्य :** एउटै नामको औषधि विभिन्न प्याकिङ्ग साइजमा र एकभन्दा बढी कम्पनीको भएमा पनि सबैभन्दा बढी बिक्री हुने प्याकिङ्ग साइजको र एउटा मात्र उत्पादकको नाम उल्लेख गर्नुहोला ।

विवरण भरनेको नाम, थर :

दस्तखत :

मिति :

## ANNEXES 2

### Formats used for data/information collection for detail information

#### बिक्रेताहरूबाट आयुर्वेद औषधिको विवरण सङ्कलन गर्ने फाराम :

(सजिलोका लागि यसै नमूना बमोजिम (क) चूर्ण, अवलेह, मलम, पेष्ट आदिको लागि (ख) वटी, ट्याब्लेट, क्याप्सुल, पिल्स आदिको लागि र (ग) आसव-अरिष्ट, सिरप, तैल आदिको लागि अलग-अलग ३ वटा फारामहरू बनाइएको ।)

औषधि पसलको नाम :

सञ्चालन अवधि : वर्ष ।

ठेगाना : जिल्ला :

न.पा. :

वार्ड नं. : स्थान/टोल :

क्र.सं.	औषधिको नाम	स्वरूप	प्रयोग विधि		एकाई परिमाण	प्याकिङ्ग/प्रस्तुति	खुद्रा मूल्य	लेबुल अनुसार			उत्पादक सङ्केत	कैफियत
			Ext	Int				ब्याचनं	नि.मिति	अवधि		

औषधि बिक्रेताको नाम, थर :

उमेर : वर्ष, लिङ्ग : स्त्री/पुरुष, शैक्षिक योग्यता :

पसल धनीको नाम, थर :

उमेर : वर्ष, लिङ्ग : स्त्री/पुरुष, स्थायी ठेगाना :

विवरण भर्नेको नाम, थर :

दस्तखत : मिति :

## ANNEXES 3

### Name and address of medical stores selected for data collection of top selling items

S. N.	Name of Medical store	Location of store	City
1.	Archana Ayurved Suppliers	Suryavinayak	Bhaktapur
2.	Hita Medical Hall	Madhyapur Thimi	Bhaktapur
3.	Joshi Ayurvedic Clinic	Nasamana	Bhaktapur
4.	Navadurga Ayurvedic Aushadhalaya	Inacho – 6	Bhaktapur
5.	Puja Ayurved Sewa	Sukuldhoka	Bhaktapur
6.	Sanjeevani Ayurvedic Clinic	Kaushaltar -15	Bhaktapur
7.	Shree Durga Aushadhalaya	Inacho – 6	Bhaktapur
8.	Achintya Medical Hall	Rangeli Road	Biratnagar
9.	Akash Medical Store	Rangeli Road	Biratnagar
10.	Ashok Aushadhalaya	Rangeli Road	Biratnagar
11.	Atal Pharmacy	Rangeli Road	Biratnagar
12.	Popular Pharma	Main Road	Biratnagar
13.	Sharada Ayurvedic Pharma	Hospital Chowk	Biratnagar
14.	Shree Pashupatinath Ayurvedic Pharmacy	Thakurvadi Road	Biratnagar
15.	Shyam Sundar Traders	Main Road, Atithi Sadan	Biratnagar
16.	Sunita Medical Hall	Rangeli Road	Biratnagar
17.	Manohar Ayurvedic Store	Birta-5	Birgunj
18.	Manoj Medical Hall	Ghantaghar	Birgunj
19.	Om Ayurved Pharma	Ghantaghar	Birgunj
20.	Pramod Medical Store	Ghantaghar	Birgunj
21.	Sahara Ayurvedic Medical Store	Maisthan	Birgunj
22.	Shakti Ayurved Bhawan	Maisthan	Birgunj
23.	Shivam Ayurved Medical Store	Vishuwa-18	Birgunj
24.	Shree Narayani Ayurvedic Aushadhayala	Adarshanagar - 13	Birgunj
25.	Yogi Pharma	Main Road - 12	Birgunj
26.	Dwarika Distributor	Kailali	Dhangadhi

27.	Paropakar Clinic	Kailali	Dhangadhi
28.	Shahi Aushadhalaya	Kailali	Dhangadhi
29.	Uchchakoti Ayurved Aushadhalaya	Kailali	Dhangadhi
30.	Dhruvatara Ayurved Aushadhalaya	Anamnagar	Kathmandu
31.	Ganga Ayurvedic Upachar Kendra	Thamel	Kathmandu
32.	Jagannath Ayurved Aushadhalaya	Naradevi	Kathmandu
33.	Janaki Ayurved	Naya Baneshwar	Kathmandu
34.	Jayakalika Ayurved Medical	Naradevi	Kathmandu
35.	Jeevanraksha Ayurved Bhawan	Naradevi	Kathmandu
36.	Laxmi Ayurvedic Pharma	Naradevi	Kathmandu
37.	Maharshi Ayurvedic Aushadhi Pasal	New Plaza, Putalisadak	Kathmandu
38.	Makalu Ayurved Pharma	Naradevi	Kathmandu
39.	Naradevi Ayurvedic Pharma	Naradevi	Kathmandu
40.	Nisha Ayurved Pasal	Kilagal	Kathmandu
41.	Om Dhanwantari Ayurvedic Pharma	Bhotahiti	Kathmandu
42.	Ravikiran Ayurved Aushadhalaya	Anamnagar	Kathmandu
43.	Sampada Ayurved Pharma	Kapurdhara, Samakhusi	Kathmandu
44.	Saraswati Ayurved Pharma	Naradevi	Kathmandu
45.	Shankar Ayurved Centre	Naradevi	Kathmandu
46.	Shiva Ayurvedic Store	Naradevi	Kathmandu
47.	Shree Ayurved Bhawan	Kilagal	Kathmandu
48.	Shree Ganesh Ayurved	Bhedasingh	Kathmandu
49.	Singhadurbar Vaidyakhana Vikas Samiti	Anamnagar	Kathmandu
50.	Suyog Ayurved Pharma	Naradevi	Kathmandu
51.	Swayambhu Ayurvedic Drug Centre	Naradevi	Kathmandu
52.	Vinayaka Aushadhalaya	Naradevi	Kathmandu
53.	Zandu Nepal Pvt. Ltd.	Putalisadak	Kathmandu
54.	Lalit Ayurvedic	Gabahal, Pimbahal	Lalitpur
55.	Navalaxmi Ayurved Bhawan	Lagankhel	Lalitpur
56.	Shrestha Ayurved	Mangalbazar	Lalitpur
57.	Siddhi Ayurvedic Aushadhalaya	Saugal	Lalitpur
58.	Swargadwari Ayurved Pharma	Ikhalkhu	Lalitpur
59.	Tara Ayurved Suppliers	Lagankhel	Lalitpur
60.	Vedanta Ayurvedic Pharma	Pulchowk	Lalitpur
61.	Dinesh Ayurvedic Aushadhi Pasal	Ethapur Road	Mahendranagar
62.	Sadhana Ayurvedic Upachar Kendra	Sukasal	Mahendranagar
63.	Uma Medical Hall	Galli No.-3	Mahendranagar
64.	Asha Ayurved Bhawan	Dhamboji-1	Nepalgunj
65.	Chaudhary Ayurved Aushadhalaya	Banke	Nepalgunj
66.	Cure Ayurvedic Aushadhi Pasal	Tribhuvan Chowk-10	Nepalgunj

67.	Family Ayurved Nepal	Surkhet Road	Nepalgunj
68.	Kavi Ayurved Pharmacy	Main road - 14	Nepalgunj
69.	Laxmi Ayurvedic Aushadhi Pasal	Fultekra-7	Nepalgunj
70.	Roshan Ayurved Aushdhalaya	Dhamboji-2	Nepalgunj
71.	Acharya Ayurvedic Aushadhi Pasal	Purano Buspark	Pokhara
72.	Arogya Homeo Pharmacy	Palikhechowk	Pokhara
73.	Ashtanga Ayurved Aushadhalaya	Gaihrapatan,Parajuli Marga	Pokhara
74.	Dibha Homeo Pharmacy	Siddharthachok-4	Pokhara
75.	Gagan Ayurvedic Aushadhalaya	Rambazar	Pokhara
76.	Indra Ayurvedic Aushadhalaya	Tersapatti-3	Pokhara
77.	Kamala Medical Centre	Dam Site	Pokhara
78.	Keshav Homeo Pharmacy	Bastolathar - 9	Pokhara
79.	Kirti Ayurvedic Medi. Sales	Tersapatti-3	Pokhara
80.	Resham Ayurvedic Aushadhalaya	Tersapatti-3	Pokhara
81.	Sefa Ayurvedic Aushadhi Pasal	Birauta	Pokhara
82.	Shraddha Health Care Centre	Tersapatti	Pokhara
83.	Shree Sahinla Aushadhalaya	Tersapatti	Pokhara
84.	Shrestha Drug Concern	Tersapatti	Pokhara
85.	Sumeru Ayurvedic Aushadhi Pasal	Tersapatti-3	Pokhara
86.	Swastik Homeo Pharma	Indrachowk	Pokhara
87.	Vishal Ayurved Pharma	Tersapatti	Pokhara

## ANNEXES 4

### Name & address of medical stores selected for detail data collection

S. N.	Name	Address	City
1	Sanjeevani Ayurved Clinic	Kaushaltar	Bhaktapur
2	Hita Medical Hall	Madhyapur Thimi	Bhaktapur
3	Joshi Ayurved	Nasamana	Bhaktapur
4	Popular Pharma	Atithi Sadan, W.No.9	Biratnagar
5	Shyam Sundar Traders	Main Road	Biratnagar
6	Om Ayurved Pharma	Ghantaghar	Birgunj
7	Narayani Ayurvedic Aushadhalaya	Adarshanagar	Birgunj
8	Yogi Pharma	Maisthan	Birgunj
9	Uchchakoti Aushadhalaya	Kailali	Dhangadhi
10	Om Dhanwantari Ayurved Pharma	Bhotahiti	Kathmandu
11	Suyog Ayurved Pharma	Naradevi	Kathmandu
12	Ravikiran Ayurved Aushadhalaya	Anamnagar	Kathmandu
13	Laxmi Ayurvedic Pharma	Naradevi	Kathmandu
14	Shiva Ayurved Stores	Naradevi	Kathmandu
15	Maharsi Ayurveda Clinic	New Plaza	Kathmandu
16	Sampada Ayurved Pharma	Samakhusi	Kathmandu
17	Makalu Ayurved Pharma	Naradevi	Kathmandu
18	Vedanta Ayurvedic Pharma	Pulchowk	Lalitpur
19	Tara Ayurved Suppliers	Lagenkhel	Lalitpur
20	Swargadwari Ayurved Pharma	Ikhalakhu	Lalitpur
21	Chaudhary Ayurved Aushadhalaya	Hospital Road	Nepalgunj
22	Family Ayurved Nepal	Dhamboji	Nepalgunj
23	Gagan Ausadhalaya	Ram Bazar	Pokhara
24	Kirti Ayurvedic Medi. Sales	Tersapatti	Pokhara
25	Acharya Ayurvedic Aushadhai Pasal	Prithvi Chowk	Pokhara
26	Astanga Ayurved Aushadhalaya	Gairapatan	Pokhara

## ANNEXES 5

### Type and city wise frequency of common Ayu medicines

S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
1	Avipattikar Churna	73	7	4	7	4	24	6	1	5	15	Clsl	61	12
2	Ashokarishta	68	6	7	6	4	19	5	2	6	13	Clsl	5	63
3	Triphala Churna	57	5	6	4	4	16	5	1	5	11	Clsl	35	22
4	Dashamularishta	47	2	7	6	3	10	4	3	5	7	Clsl	1	46
5	Chyavanaprash Avaleha	32	3	5	7	-	10	3	1	-	3	Clsl	10	22
6	Liv-52	29	-	6	5	-	12	2	1	1	2	Ptnt	-	29
7	Kasturi Bhushan	21	2	1	-	1	10	2	-	-	5	Clsl	21	-
8	Yogaraj Guggul	21	1	3	-	-	8	4	-	1	4	Clsl	8	13
9	Shuddha Shilajit	19	1	-	1	-	10	3	-	-	4	Clsl	17	2
10	Hingwastak Churna	18	5	-	-	2	-	2	-	3	6	Clsl	12	6
11	Sitopaladi Churna	18	1	-	2	-	5	1	-	1	8	Clsl	15	3
12	Ashwagandha Churna	15	1	-	1	1	7	1	1	-	3	Clsl	10	5
13	Janma Ghunti	15	1	5	2	1	1	3	1	-	1	Ptnt	3	12
14	Kumaryasava	13	-	1	-	3	1	-	-	3	5	Clsl	3	10
15	Shankha Bhasma	12	2	-	1	-	4	-	-	5	-	Clsl	6	6
16	Chandraprabha Vati	10	-	1	1	-	1	1	-	4	2	Clsl	2	8
17	Honitus	10	-	4	-	-	2	1	-	2	1	Ptnt	-	10
18	Lavanabhaskar Churna	10	4	-	-	-	2	1	-	1	2	Clsl	5	5
19	Mahayogaraj Guggul	10	1	2	-	-	1	-	-	-	6	Clsl	-	10
20	Ashwagandharishta	9	1	1	-	2	-	2	2	-	1	Clsl	-	9
21	Mahanarayan Tel	9	-	1	1	-	2	2	-	2	1	Clsl	1	8
22	Abhayarishta	8	-	-	2	1	1	-	2	1	1	Clsl	1	7

S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
23	Ajawain Tel	8	1	-	-	1	4	1	-	-	1	Ptnt	8	-
24	Lohasava	8	-	-	-	2	-	-	1	2	3	Clsl	-	8
25	Rohitakyadi Churna	8	1	-	-	1	5	1	-	-	-	Clsl	8	-
26	Safi	7	-	1	1	-	1	1	1	-	2	Ptnt	-	7
27	Shilajit Capsule	7	-	1	2	-	2	-	-	-	2	Clsl	6	1
28	Gastric Haran Churna	6	-	-	-	-	4	-	1	-	1	Ptnt	6	-
29	Sundari Kalpa	6	-	2	2	-	2	-	-	-	-	Ptnt	-	6
30	Amalpittanashak Churna	5	-	-	-	-	1	-	-	-	4	Ptnt	5	-
31	Drakshasava	5	2	-	1	1	-	-	-	1	-	Clsl	1	4
32	Gripe Water	5	-	-	4	-	-	-	-	-	1	Ptnt	-	5
33	Himcocid Syrup	5	-	-	-	-	3	1	-	-	1	Ptnt	-	5
34	Jesthalavangadi Churna	5	3	-	-	-	-	-	-	-	2	Clsl	5	-
35	Khadiradi Vati	5	1	-	-	-	4	-	-	-	-	Clsl	2	3
36	Praval Bhasma	5	-	-	-	-	1	-	-	3	1	Clsl	-	5
37	Shadbindu Tel	5	1	-	-	-	3	-	-	-	1	Clsl	1	4
38	Sutashekhar Ras	5	-	1	1	-	2	-	-	1	-	Clsl	1	4
39	Balm	4	-	2	2	-	-	-	-	-	-	Ptnt	-	4
40	Grihalaxmi Syrup	4	-	-	-	1	-	-	-	2	1	Ptnt	-	4
41	Kasarin Syrup	4	-	1	-	-	2	1	-	-	-	Ptnt	4	-
42	Laxmivilas Ras	4	-	-	1	-	1	-	-	-	2	Clsl	-	4
43	M. V. Liv	4	-	1	-	-	1	1	-	1	-	Ptnt	4	-
44	Manoll Malt	4	1	1	1	-	-	-	-	-	1	Ptnt	-	4
45	Mrigamadasava	4	1	-	-	-	3	-	-	-	-	Clsl	4	-
46	Piloma Capsule	4	1	1	-	-	-	1	-	-	1	Ptnt	-	4
47	Pudin Hara	4	-	3	-	1	-	-	-	-	-	Ptnt	-	4
48	Rhumasyil Liniment	4	-	1	-	-	3	-	-	-	-	Ptnt	-	4
49	Tulasi Herbal Tea	4	1	-	-	-	3	-	-	-	-	Ptnt	4	-
50	Crux Cough Syrup	3	-	-	-	-	3	-	-	-	-	Ptnt	-	3
51	Gas Herb	3	-	-	-	1	-	-	-	-	2	Ptnt	3	-
52	Gasantak Vati	3	-	-	2	-	-	-	-	1	-	Ptnt	-	3
53	Kamadudha Ras	3	-	-	1	-	-	-	-	2	-	Clsl	1	2
54	Khadirarishta	3	-	-	2	-	1	-	-	-	-	Clsl	-	3
55	Lal Tel	3	-	1	2	-	-	-	-	-	-	Ptnt	-	3



S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
56	Nivarak Tel	3	-	-	-	-	2	-	-	1	-	Ptnt	3	-
57	Praval Pisti	3	-	-	1	-	1	-	-	1	-	Clsl	1	2
58	Rumalaya Tablet	3	-	-	-	-	-	1	-	-	2	Ptnt	-	3
59	Septilin Tablet	3	-	-	-	-	1	1	-	-	1	Ptnt	-	3
60	Amalakyadi Churna	2	-	-	-	-	1	1	-	-	-	Clsl	2	-
61	Ashwagandha Capsule	2	-	-	-	-	2	-	-	-	-	Clsl	1	1
62	Balamrit	2	1	-	-	-	-	1	-	-	-	Ptnt	1	1
63	Battisa Churna	2	-	-	-	-	-	-	-	-	2	Clsl	2	-
64	Chandanasava	2	-	-	-	-	-	-	1	1	-	Clsl	1	1
65	Cystone Tab	2	-	2	-	-	-	-	-	-	-	Ptnt	-	2
66	Gasona	2	-	-	-	1	-	-	1	-	-	Ptnt	2	-
67	Gastric Aram Churna	2	-	-	-	-	-	-	1	-	1	Ptnt	2	-
68	Gastric Powder	2	-	-	-	-	-	-	-	-	2	Ptnt	2	-
69	Giloya Satwa	2	-	-	1	-	-	-	-	-	1	Clsl	-	2
70	Gynocol Syrup	2	-	-	-	-	-	-	-	-	2	Ptnt	-	2
71	Hema Syrup	2	-	-	-	-	-	-	-	-	2	Ptnt	-	2
72	Honey	2	-	-	-	-	-	-	-	2	-	Clsl	2	-
73	Isabgol Churna	2	-	-	1	-	-	-	-	-	1	Clsl	-	2
74	Kabjhar	2	-	-	2	-	-	-	-	-	-	Ptnt	-	2
75	Kanchanar Guggul	2	-	-	-	-	1	-	-	-	1	Clsl	1	1
76	Kasamrit Herbal	2	-	-	1	-	-	-	-	-	1	Ptnt	-	2
77	Kasantak Leha	2	2	-	-	-	-	-	-	-	-	Ptnt	2	-
78	Kayam Churna	2	-	2	-	-	-	-	-	-	-	Ptnt	-	2
79	Lalshar	2	-	-	-	-	1	-	-	-	1	Ptnt	-	2
80	Leaf Cough Syrup	2	-	-	-	-	-	-	-	-	2	Ptnt	-	2
81	Livomyn	2	-	-	2	-	-	-	-	-	-	Ptnt	-	2
82	Madhuvani	2	-	-	-	1	1	-	-	-	-	Ptnt	-	2
83	Mahamanjish thadyarishta	2	-	-	-	-	-	-	1	-	1	Clsl	-	2
84	Neem Capsule	2	-	-	-	-	1	-	1	-	-	Clsl	2	-
85	Neeri Tab	2	-	2	-	-	-	-	-	-	-	Ptnt	-	2
86	Nirocil Tablet	2	-	-	-	-	2	-	-	-	-	Ptnt	-	2
87	Pigmento Tablet	2	-	1	-	-	1	-	-	-	-	Ptnt	-	2
88	Pilex	2	-	-	-	-	1	-	1	-	-	Ptnt	-	2

S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
89	Pinas Nas Tel	2	-	-	-	-	-	-	-	-	2	Ptnt	2	-
90	Sancho	2	-	1	-	-	1	-	-	-	-	Ptnt	2	-
91	Saraswatarishta	2	-	-	-	-	-	-	1	-	1	Clsl	-	2
92	Shankhapushpi	2	-	-	1	-	1	-	-	-	-	Ptnt	-	2
93	Surakta	2	-	-	1	-	-	1	-	-	-	Ptnt	-	2
94	Vajikar Shakti	2	1	-	-	-	1	-	-	-	-	Ptnt	2	-
95	Addyzoa	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
96	Adliv Syrup	1	1	-	-	-	-	-	-	-	-	Ptnt	-	1
97	Alpitone	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
98	Amati	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
99	Amherb	1	-	-	-	1	-	-	-	-	-	Ptnt	1	-
100	Amlapittahar	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
101	Amlycure	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
102	Amlycure DS	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
103	Arjunarishta	1	-	-	1	-	-	-	-	-	-	Clsl	-	1
104	Arsari Churna	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
105	Arsari Tel	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
106	Arsol	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
107	Asari Churna/Tel	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
108	Ashoka Cordial	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
109	Ayurvedic Kadha	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
110	Bhunimbadi	1	-	-	-	-	-	-	-	1	-	Clsl	-	1
111	Bolabaddha Ras	1	-	1	-	-	-	-	-	-	-	Clsl	-	1
112	Cephagraine	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
113	Chandrazyme	1	-	-	1	-	-	-	-	-	-	Ptnt	1	-
114	Chintamani Ras	1	-	-	-	-	-	-	-	1	-	Clsl	-	1
115	Chitrak Haritaki	1	-	-	-	-	1	-	-	-	-	Clsl	1	-
116	Clemenstol	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
117	Confido	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
118	Cuflex	1	-	-	1	-	-	-	-	-	-	Ptnt	1	-
119	Diabecon Tablet	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
120	Drakshadi Churna	1	-	-	-	-	1	-	-	-	-	Clsl	1	-
121	Draksharishta	1	-	-	-	-	-	-	1	-	-	Clsl	-	1
122	Drakshavaleha	1	-	-	1	-	-	-	-	-	-	Clsl	-	1

S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
123	Durga Kadha	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
124	Ekangavir Ras	1	-	-	-	-	-	-	-	-	1	Clsl	-	1
125	Eladi Bhasma	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
126	Gashar Churna	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
127	Gastric Niko Churna	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
128	Gastrina	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
129	Gastro A Churna	1	-	-	-	-	1	-	-	-	-	Ptnt	1	-
130	Gokshuradi Guggul	1	-	-	-	-	-	-	-	-	1	Clsl	-	1
131	Hartal Godanti Bhasma	1	-	-	1	-	-	-	-	-	-	Clsl	-	1
132	Hing Goli	1	-	-	-	-	1	-	-	-	-	Ptnt	1	-
133	Hridayamrit	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
134	Hyponid Tablet	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
135	Inzex Syrup	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
136	Kafhar Syrup	1	-	-	-	-	1	-	-	-	-	Ptnt	1	-
137	Kaishor Guggul	1	-	-	-	-	-	-	-	-	1	Clsl	-	1
138	Kasa Vati	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
139	Kasturadi Chakki	1	-	-	-	-	1	-	-	-	-	Clsl	1	-
140	Kasturadi Tel	1	1	-	-	-	-	-	-	-	-	Clsl	1	-
141	Kaudi Bhasma	1	-	-	-	-	1	-	-	-	-	Clsl	1	-
142	Kawalidas	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
143	Kayakanchan Churna	1	-	-	-	-	1	-	-	-	-	Ptnt	1	-
144	Keshari Jeevan	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
145	Khadiradi Gutka	1	-	-	-	-	1	-	-	-	-	Clsl	-	1
146	Kutajaristha	1	-	-	-	-	-	-	1	-	-	Clsl	-	1
147	Leukoherb	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
148	Leukorin Capsule	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
149	Livherb	1	-	-	-	1	-	-	-	-	-	Ptnt	1	-
150	Mahabhringaraj Tel	1	-	-	-	-	-	-	-	1	-	Clsl	-	1
151	Mahadrakshasava	1	-	-	-	-	-	-	1	-	-	Clsl	-	1
152	Mahalaxmivilas Ras	1	-	-	-	-	1	-	-	-	-	Clsl	-	1
153	Maharasnadi Kadha	1	-	-	-	-	-	-	1	-	-	Clsl	-	1
154	Maheshwari Churna	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
155	Mandur Bhasma	1	-	-	-	-	-	-	-	-	1	Clsl	-	1
156	Manol Malt	1	-	-	1	-	-	-	-	-	-	Ptnt	1	-

S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
157	Mentat Tablet	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
158	Mimiya	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
159	Moti Bhasma	1	-	-	-	-	-	-	-	1	-	Clsl	1	-
160	Nari Jivan	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
161	Nature Care	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
162	Navayas Lauha	1	-	-	-	-	1	-	-	-	-	Clsl	-	1
163	Navayas Mandur	1	-	-	-	-	-	-	-	-	1	Clsl	-	1
164	Neeri Syrup	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
165	Panchasakar Churna	1	-	-	1	-	-	-	-	-	-	Clsl	-	1
166	Pentacid	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
167	Pilarin	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
168	Pittaghna Vati	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
169	Prabhakar Vati	1	-	-	-	-	-	-	-	1	-	Clsl	1	-
170	Prasutarishta	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
171	Punarnavarishta	1	-	-	-	-	-	-	1	-	-	Clsl	-	1
172	Pushyanug Churna	1	-	-	-	-	-	1	-	-	-	Clsl	-	1
173	Ramvana Ras	1	-	1	-	-	-	-	-	-	-	Clsl	1	-
174	Regumens	1	1	-	-	-	-	-	-	-	-	Ptnt	1	-
175	Reosto Tablet	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
176	Rhue Oil	1	-	1	-	-	-	-	-	-	-	Ptnt	-	1
177	Rohitakarishta	1	-	1	-	-	-	-	-	-	-	Clsl	-	1
178	Ruma Oil	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
179	Rumatyl	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
180	Sandeepan Churna	1	-	-	-	-	1	-	-	-	-	Ptnt	1	-
181	Shankhapushpi Oil	1	-	-	-	-	-	-	-	1	-	Clsl	-	1
182	Shatavari Kalpa	1	-	-	1	-	-	-	-	-	-	Ptnt	-	1
183	Shirashuladivajra Ras	1	-	-	-	-	-	-	-	-	1	Clsl	-	1
184	Shitasar	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
185	Somasar	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
186	Stree-Jeevan	1	-	-	-	1	-	-	-	-	-	Ptnt	1	-
187	Sundari Kalpa Forte	1	-	-	1	-	-	-	-	-	-	Ptnt	-	1
188	Suvarna Talish	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
189	Suvarnamalati Ras	1	-	-	-	-	1	-	-	-	-	Clsl	-	1
190	Talisadi Churna	1	-	-	-	-	-	-	-	1	-	Clsl	1	-

S. N.	Name of Medicine	Total	Bhaktapur	Biratnagar	Birgunj	Dhangadhi	Kathmandu	Lalitpur	Mahendranagar	Nepalgunj	Pokhara	Type*	Nepal	India
191	Tensarin Tablet	1	-	-	-	-	-	-	-	-	1	Ptnt	1	-
192	Trifgol	1	-	-	-	1	-	-	-	-	-	Ptnt	-	1
193	Triphala Guggul	1	-	1	-	-	-	-	-	-	-	Clsl	-	1
194	Vedanahar	1	-	-	-	-	-	1	-	-	-	Ptnt	1	-
195	Vigorex Capsule	1	-	-	-	-	-	-	-	-	1	Ptnt	-	1
196	Vimfix Tablet	1	-	-	1	-	-	-	-	-	-	Ptnt	-	1
197	Vimliv Syrup	1	-	-	1	-	-	-	-	-	-	Ptnt	-	1
198	Vimliv Tablet	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
199	Vita X Gold	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
200	Whoopin	1	-	-	1	-	-	-	-	-	-	Ptnt	-	1
201	Zymnet	1	-	-	-	-	1	-	-	-	-	Ptnt	-	1
<b>Total</b>		<b>870</b>	<b>70</b>	<b>90</b>	<b>90</b>	<b>40</b>	<b>240</b>	<b>70</b>	<b>30</b>	<b>70</b>	<b>170</b>		<b>353</b>	<b>517</b>

\* Clsl = Classical, Ptnt = Patent

## ANNEXES 6

### List of Ayu medicines available in Nepalese market

1	Aaram Churna	26	Alpitone	51	Amree Plus Granules
2	Abalari	27	Alsarex	52	Amrit Vindu
3	Abana	28	Alvita	53	Amritadi Guggul
4	Abhayarishta	29	Amala Churna	54	Amritarishta
5	Abhrak Bhasma	30	Amalaki Churna	55	Amycordial
6	Abhraloha	31	Amalaki Rasayan	56	Amypure
7	Acibac	32	Amalaki Tablet	57	Amyron
8	Acicalm	33	Amalakyadi Churna	58	Amza
9	Acicam	34	Amarsundari Gutika	59	Anandabhairav Ras
10	Acne N Pimple	35	Amarsundari Vati	60	Ananta Churna
11	Acnovin	36	Amati	61	Ananta Salsa
12	Addyzoa	37	Amavatari Ras	62	Angoori Salsa
13	Adliv	38	Amherb	63	Angurasava
14	Agnikumar Ras	39	Amla Tel	64	Anmol Churna
15	Agnimukh Churna	40	Amlantak	65	Anti-acid
16	Agnitundi Vati	41	Amlapitta Mishran	66	Antistress Massage Oil
17	Ajamodadi Churna	42	Amlapittanashak	67	Anusekhar Ras
18	Ajamodadi Vati	43	Amlapittanashak Churna	68	Aram Tel
19	Ajawain Tel	44	Amlapittanashak Yog	69	Aravindarishta
20	Akaf	45	Amlapittantak Lauha	70	Aravindasava
21	Akik Bhasma	46	Amlapittantak Vati	71	Arjun Churna
22	Akik Pisti	47	Amlapittantak Yog	72	Arjunarishta
23	All Purpose Cream	48	Amlarin	73	Arogyavardhini Vati
24	Allerin	49	Amlycure	74	Arsari Churna
25	Aloevera Kesh Tel	50	Amlycure DS	75	Arsari Tel

76	Arshakuthar Ras	112	Balarishta	148	Brentab
77	Arshoghni Vati	113	Balark Ras	149	Brento
78	Arsol	114	Balarogantak Ras	150	Brihad Haridra Khanda
79	Arsonyt ointment	115	Balm	151	Brihat Purnachandra Ras
80	Arsonyt tablet	116	Balposh	152	Brihat Vangeshwar Ras
81	Arthririn	117	Banaspati	153	Brihat Vatachintamani Ras
82	Arvindasava	118	Banbooti	154	Calcurex
83	Ashoka	119	Barro	155	Calcurosin
84	Ashoka Compound	120	Battisa Churna	156	Calcury
85	Ashoka Cordial	121	Beauty Sadhana	157	Carmint
86	Ashokarishta	122	Berb-Enterone	158	Cephagraine oil
87	Ashotone	123	Bhairav Bhasma	159	Cephagraine set
88	Ashwagandha Capsule	124	Bhaskaralavana Churna	160	Cephagraine tablet
89	Ashwagandha Churna	125	Bhavanagari	161	Chalmogra Tel
90	Ashwagandha Tel	126	Bhringaraj Tel	162	Chandan Tel
91	Ashwagandhadi Churna	127	Bhringarajasava	163	Chandanabaladi Tel
92	Ashwagandharishta	128	Bhunimvadi Kadha	164	Chandanadi Churna
93	Asphaltum Syrup	129	Bhuvaneshwar Vati	165	Chandanadi Lauha
94	Asthmarin	130	Biacpant	166	Chandanadi Vati
95	Atisarantak Churna	131	Bilagyil	167	Chandanasava
96	Avipattikar Churna	132	Bilwa Tel	168	Chandeshwar Ras
97	Avipattikar Churna (SF)	133	Bilwadi Churna	169	Chandi Bhasma
98	Ayucid	134	Bleecid	170	Chandrakala Ras
99	Ayurvedic Cream	135	Blood Care	171	Chandrakant Ras
100	B-Cilin	136	Blood Vigour	172	Chandramrit Ras
101	B-Slim	137	Bojomint	173	Chandramshu Ras
102	Babbularishta	138	Bolabaddha Ras	174	Chandraprabha Vati
103	Babul Sudhar	139	Bolaparpati	175	Chandrashekhar Ras
104	Bacto	140	Bonissan Drop	176	Chandrodaya Ras
105	Badam Tel	141	Bonissan Syrup	177	Charmarika
106	Baikrant Bhasma	142	Boroplus	178	Charmaroganashak
107	Bala Churna	143	Brahma Rasayan	179	Charmolin
108	Balabel Churna	144	Brahmi Churna	180	Charmon Drop
109	Balachaturbhadra Churna	145	Brahmi Ghrit	181	Chatushashtiprahari Pipli
110	Balamrit	146	Brahmi Tel	182	Chavikasava
111	Balaposh	147	Brahmi Vati	183	Chestorex

184	Chintmani Ras	220	Dashamul Churna	256	Dugdha Vati
185	Chira	221	Dashamul Kwath	257	Efiplus
186	Chirayita	222	Dashamul Tel	258	Ekangavir Ras
187	Chitrak Guggul	223	Dashamularishta	259	Eladi Vati
188	Chitrak Haritaki Avaleha	224	Dazzle	260	Elcarim
189	Chitrakadi Vati	225	Debix	261	Eligans
190	Cholesteronil	226	Deeprub	262	Emcys
191	Cholestrol Care	227	Dental Cream	263	Entostal
192	Chopachinyadi Churna	228	Dermafex capsule	264	Enzex
193	Chyavanaprash Avaleha	229	Dermafex Oil	265	Ephenin
194	Clarina	230	Dermafex ointment	266	Eranda Tel
195	Clear O Super	231	Dermex	267	Espitone
196	Clemenstol	232	Devadarvadyarishta	268	Evecare
197	Clove Oil	233	Dhairo Churna	269	Evteen
198	Colicarmin	234	Dhanyapanchak Churna	270	Face Pack
199	Confido	235	Dhatakyadi Churna	271	Femelin
200	Cordial – H	236	Dhatri Lauha	272	Femiplex
201	Cough Kesari	237	Dhatupaushtik Churna	273	Feroliv Forte
202	Cough Tone	238	Diabac	274	Foot Care
203	Crack	239	Diabecap	275	G.B. Tone
204	Crux	240	Diabecon	276	Gandhak Rasayan
205	Cufex	241	Diakant	277	Gangadhar Churna
206	Curex	242	Diakof	278	Gangadhar Ras
207	Cutfar	243	Diarex	279	Garbex
208	Cutis Oil	244	Dilapsin	280	Garbha Chintamani Ras
209	Cystone	245	Dimagdoshari	281	Garbhupal Ras
210	Cystostal	246	Dimagpaushtik Rasayan	282	Gasantak Vati
211	Dadrughna Malham	247	Diodine	283	Gasex
212	Dakhina	248	Disoma	284	Gashar Churna
213	Dam Nivarak Churna	249	Drakshadi Churna	285	Gashar Vati
214	Danta Prabha	250	Draksharishta	286	Gasherb Churna
215	Dantamanjan	251	Drakshasava	287	Gasherb Syrup
216	Dantamohani Churna	252	Drakshasava Special	288	Gasohar Churna
217	Dantamrit Tel	253	Drakshavaleha	289	Gasona
218	Dar Danta	254	Drakshovin Special	290	Gasrup
219	Dar Kan	255	Drill	291	Gassina



292	Gastodin	328	Harro Churna	364	Jalodarari Ras
293	Gastrex	329	Healer Malham	365	Jamun Churna
294	Gastric-haran Churna	330	Hearto	366	Janma Ghunti
295	Gastric Aram	331	Hema Syrup	367	Japapushpa Churna
296	Gastric Aram Churna	332	Hemocleen	368	Jatyadi Tel
297	Gastric Herbo	333	Hemron	369	Jaundex
298	Gastric Nashak	334	Hepagard DS	370	JD Zyme
299	Gastrik Niko	335	Hepatone	371	Jeevan Kalpa
300	Gastrina	336	Heptoliv	372	Jesthalavangadi Churna
301	Gastro	337	Herbal Dantamanjan	373	Jesthavasadi Churna
302	Gasy	338	Herbal Kapoor Cream	374	Jirakadyarishta
303	Geriforte	339	Herbo Gastric	375	Joint Care
304	Ghoti Churna	340	Herbo massage	376	Joshina
305	Giloya Satwa	341	Herbolax	377	Jufex
306	Godanti Bhasma	342	Himalaya Tel	378	Jukamo
307	Godanti Haratal Bhasma	343	Himcocid	379	Jwanozyme
308	Gokharu Kadha	344	Himcolin ointment	380	Jwaraghna
309	Gokshur Churna	345	Himcolin syrup	381	Jwarankush Ras
310	Gokshuradi Guggul	346	Himsagar Tel	382	K-4
311	Grahanikapat Ras	347	Hing Goli	383	Kabjaha Churna
312	Green Punarnava	348	Hingwadi Tel	384	Kaf-kesari
313	Grihalaxmi	349	Hingwashtak Churna	385	Kafcol
314	Gripe Water	350	Honicof	386	Kafhar
315	Guduchi Tel	351	Honitus	387	Kafkartari
316	Gulmakalana Ras	352	Hridayachintamani Ras	388	Kaharva Pisti
317	Gum Tone	353	Hridayarnava Ras	389	Kaishor Guggul
318	Guni Tel	354	Hyponid	390	Kakubhadi Churna
319	Gynocol	355	Ichchhabhedi Ras	391	Kalameghasava
320	Haemol Forte	356	Immunocare	392	Kamachudamani
321	Hairbac	357	Infee	393	Kamadudha Ras
322	Hajarul Yahud Bhasma	358	Irimedadi Tel	394	Kamalantak Churna
323	Hajmola	359	Isabgol Churna	395	Kamalantak Vati
324	Haridra Khanda	360	Isova	396	Kamalari Vati
325	Harital Bhasma	361	Itchnil	397	Kamdheni
326	Harital Godanti Bhasma	362	Jaharmohara Pisti	398	Kaminividra Van Ras
327	Hariyo Malham	363	Jaharmoharakhatai Pisti	399	Kan Pip

400	Kanakasava	436	Keshari Jeevan	472	Lavanabhaskar Churna
401	Kanakasundar Ras	437	Keshrani Tel	473	Lavanashankha
402	Kanchanar Guggul	438	Khadiradi Vati	474	Lavanga Tel
403	Kankayan Vati	439	Khadirarishta	475	Lavangadi Vati
404	Kankayan Vati (Arsha)	440	Khayar Churna	476	Lax
405	Kantakari Churna	441	Klot	477	Laxminarayan Ras
406	Kantakaryavaleha	442	Koflet	478	Laxmivilas Ras
407	Kantaloha Bhasma	443	Kofol	479	Laxo
408	Kanthisudhar vati	444	Kool	480	Leaf Cough Syrup
409	Kantikar Malam	445	Krimighatini Vati	481	Leafkaf
410	Kapardak Bhasma	446	Krimihar Yog	482	Leuco-F
411	Kaphachintamani Ras	447	Krimimudgar Ras	483	Leucogard
412	Kaphaketu Ras	448	Kshar Parpati	484	Leucolin
413	Kaphakuthar Ras	449	Kshar Tel	485	Leucona
414	Kapikachchhu	450	Kumarakalyan Ras	486	Leucopills
415	Karnavindu Tel	451	Kumariasava No.1	487	Leukoherb
416	Karpur Ras	452	Kumaryasava	488	Leukorin-G
417	Karpuradi Vati	453	Kumarysava No.3	489	Leukorin
418	Karpurmalisa Tel	454	Kusthadi Manjan	490	Lipan
419	Kas Chintamani	455	Kutajaghana Vati	491	Liv 52
420	Kas Nas	456	Kutajarishta	492	Liv 52 DS
421	Kas Vati	457	Kutajashtaka Vati	493	Liver Tonic
422	Kasamrit Herbal	458	Kutjavaleha	494	Liverdex Syrup
423	Kasantak Vati	459	Laksha Chakrika	495	Livergen
424	Kasarin	460	Laksha Churna	496	Livex
425	Kasis Bhasma	461	Laksha Guggul	497	Livex Drop
426	Kasisadi Tel	462	Lakshadi Churna	498	Livherb
427	Kasturadi Tel	463	Lakshadi Guggul	499	Livo Pills
428	Kasturadi Vati	464	Lakshadi Tel	500	Livocu
429	Kasturi Bhushan	465	Lal Dantamanjan	501	Livomex
430	Kasturibhairav Ras	466	Lal Shar	502	Livomyn
431	Kaudi Bhasma	467	Lal Tel	503	Livoril
432	Kayakalpa Tel	468	Lashunadi Vati	504	Livorin
433	Kayam Churna	469	Lauha (Shatputi) Bhasma	505	Livosave
434	Kesh Tel	470	Lauha Bhasma	506	Livosave Drop
435	Kesh Tel Special	471	Lauha Parpati	507	Livospin

508	Livotrit	544	Mahashankha Vati	580	Menoril Forte
509	Livplus	545	Mahasudarshan Churna	581	Menosan
510	Lodhrasava	546	Mahasudarshan Kadha	582	Mentat
511	Lohasava	547	Mahasudarshan Vati	583	Mimiya
512	Lokanath Ras	548	Mahasugandhit Tel	584	Mintex oil
513	Lucogyl	549	Mahavatavidhwamsan Ras	585	Mobyl
514	Lucorin	550	Mahavatnashak Ras	586	Molis
515	Ludoil	551	Mahavishagarbha Tel	587	Monisan Pain Balm
516	Lukol	552	Mahayogaraj Guggul	588	Moov
517	Lukure	553	Maheswari Churna	589	Moti Bhasma
518	Lumistal	554	Makaradhwaj	590	Moti Pisti
519	Lwang Ka Tel	555	Makaradhwaj Vati	591	Mriduvirechana Churna
520	Lwang Tel	556	Makaravajra	592	Mrigamadasava
521	M-2 Tone	557	Malakaguni Tel	593	Mriganka Ras
522	M.V. Liv	558	Malla Sindoor	594	Mrityunjaya Ras
523	Madhu Vani	559	Malla Tel	595	Mudgal Ex
524	Madhumalini Vasanta	560	Maltafera	596	Muga Bhasma
525	Madhumehari	561	Mamarakha Mochan	597	Mukta Bhasma
526	Madhumehari Yog	562	Mamarkha	598	Mukta Pisti
527	Madhuri	563	Mana	599	Muktashukti Bhasma
528	Madhwasava	564	Mandur Bhasma	600	Muktashukti Pisti
529	Mahabhringaraj Tel	565	Mandur Vatak	601	Mushali Churna
530	Mahachandanadi Tel	566	Manikya Ras	602	Mushali Pak
531	Mahajwarankush Ras	567	Manmath Ras	603	Mustak Churna
532	Mahalakshadi Tel	568	Manoll	604	Mustakarishtha
533	Mahalaxmivilas Ras	569	Marichadi Vati	605	Myostaal Liniment
534	Mahamanjishthadi Kwath	570	Massage Oil	606	Myostaal oil
535		571	Masthim Churna	607	Myostaal ointment
536	Mahamanjishthadi Kadha	572	Mauktik Bhasma	608	Myostaal tablet
537	Mahamarichadi Tel	573	Mauktik Pisti	609	Mytone
538	Mahamasha Tel	574	Mayur Chandrika	610	Nag Bhasma
539	Mahanarayan Tel	575	Medohar Vidangadi	611	Nagarjunabhra Ras
540	Maharaji Tel	576	Mehamudgar Vati	612	Naram Tel
541	Maharasnadi Kadha	577	Memorex	613	Narayana Churna
542	Maharasnadi Kwath	578	Memtone	614	Nari Amrit
543	Mahasava	579	Menocramp	615	Nari Jeevan

616	Nari Kalyan	652	Pachak Churna	688	Pippalyadi
617	Narikela Kshara	653	Pachan Tablet	689	Pippalyadyasava
618	Narvinol	654	Pain Gone	690	Pippalyasava
619	Nashtapushpantak Ras	655	Pain Oil	691	Pittaghna Vati
620	Nature Care	656	Pamantak Lotion	692	Pittantak
621	Navaras	657	Pamantak Malam	693	Piyushavalli Ras
622	Navaratna Tel	658	Panchamrit Parpati	694	Plantacid
623	Navayas Lauha	659	Panchaphool Tel	695	Plihari Vati
624	Navayas Mandur	660	Pancharishta	696	Powertone
625	Neem Capsule	661	Panchasakar Churna	697	Prabhakar vati
626	Neem Tel	662	Panchasava	698	Prabhakar Vati
627	Neeri	663	Panchatikta Ghrit	699	Pradarahar
628	Neo	664	Panchatikta Guggul	700	Pradaranashak Churna
629	Nidrayani	665	Panchatiktaghrit Guggul	701	Pradarantak Lauha
630	Nimbadi Churna	666	Paralaps	702	Pradarantak Ras
631	Nimbadi Tel	667	Paralitol Tel	703	Pradarantak Vati
632	Nirgundi	668	Parthadyarishta	704	Praneshwar Ras
633	Nirocil	669	Pashanabhed Churna	705	Prasanti
634	Nirogi Churna	670	Pathrina	706	Prasarani Tel
635	Nityam Churna	671	Pathyadi Kadha	707	Prasutarishta
636	Nityananda Ras	672	Patrangasava	708	Pratapalankeshwar Ras
637	Nivarak	673	Peedahar Malam	709	Pratapalankeshwar Vati
638	Nivarak Tel	674	Pen Masage	710	Pratishyayahar Vati
639	No. 30 Churna	675	Pentacid	711	Praval Chandan
640	Nripativallabh Ras	676	Penwel	712	Pravala Bhasma
641	Nutrich	677	Peppermint	713	Pravala Chandan
642	Obenyl	678	Phalatrikadi Churna	714	Pravala Panchamrit
643	Ojus	679	Phalatrikadi Kadha	715	Pravala Panchmrit
644	Ophthacare	680	Pigmento	716	Pravala Pisti
645	Oshotone	681	Pilarin	717	Pravalashukti Bhasma
646	Ossoma	682	Pilex	718	Preg Utero
647	Ossopan	683	Pilex Ointment	719	Psora
648	Ossopan Forte	684	Piloma	720	Pudin Hara
649	Osteon-D	685	Pinashin	721	Punarnavadi Guggul
650	Ovarin	686	Pinasnas Tel	722	Punarnavadi Mandur
651	Ovoutoline	687	Pippali Churna	723	Punarnavadi Tel

724	Punarnavadi Vati	760	Rato Vari	796	Rymanyl capsule
725	Punarnavadyarishta	761	Raupya Bhasma	797	Rymanyl oil
726	Punarnavarishta	762	Rechi Churna	798	Safi
727	Punarnavasava	763	Reclodex	799	Saindhavadi Tel
728	Purif	764	Regumens	800	Samirapannag Ras
729	Purnachandra Ras	765	Renalka	801	Sancho
730	Pushpadhanwa Ras	766	Renova	802	Sandipan Churna
731	Pushyanug Churna	767	Reosto	803	Sangeyasad Pisti
732	Pushyanug Churna No. 1	768	Respicare	804	Sanjeevani Sudha
733	Pushyanug Churna No. 2	769	Rhue	805	Sanjivani Ras
734	Putrajivaka Beej	770	Rhuma oil	806	Sanjivani Vati
735	Pyroflex	771	Rhuma Oil	807	Sankha Bhasma
736	Pyroids	772	Rhumasyl	808	Sankhapushpi Tel
737	Quick	773	Rhumatil	809	Sannipatabhairav Ras
738	R. Pairyn	774	Rhumayog	810	Saptaguna Tel
739	Radona	775	Rhumayog Gold	811	Saptamrit Lauha
740	Rahat Ruh	776	Roghan Badam Tel	812	Saptavimshati Guggul
741	Raj Vati	777	Rohit Mandur Vati	813	Sarak Churna
742	Rajahpravartani Vati	778	Rohitakarishta	814	Saraswat Churna
743	Rajashodhak	779	Rohitakyadi Churna	815	Saraswatarishta
744	Rajasudharak Vati	780	Rohitakyadi Vati	816	Sarbat Shilajit
745	Rajat Bhasma	781	Roma Compound	817	Sarivadi Vati
746	Rakta Safa	782	Rudanti	818	Sarivadyarishta
747	Raktalavangadi Churna	783	Rudradeo Oil	819	Sarivadyasava
748	Raktapittantak Lauha	784	Rudragen	820	Sarpagandha Churna
749	Raktashodhak Vati	785	Rumalaya Forte	821	Sarpagandhaghana Vati
750	Raktasudha	786	Rumalaya oil	822	Sarvajwarahar Lauha
751	Ramavana Ras	787	Rumalaya ointment	823	Sarvatobhadra Ras
752	Rasamanikya	788	Rumalaya tablet	824	Satya Jivan
753	Rasapipari	789	Rumanil Gel	825	Saubhagya Shunti Pak
754	Rasaraj Ras	790	Rumanil Oil	826	Saubhagya Vati
755	Rasasindur	791	Rumartho	827	Semento
756	Rasnadi	792	Rumartho Gold	828	Senovila
757	Rasnadi Guggul	793	Rumartho Silver	829	Septilin
758	Rasnadi Kadha	794	Rumodol	830	Sesa Oil
759	Rasnadi Kwath	795	Rumodol oil	831	Shadbindu Tel

832	Shakti-Tone
833	Shaktiherb
834	Shaktimin
835	Shaktimol
836	Shaktina
837	Shaktiton
838	Shaktivardhak Yog
839	Shankha Bhasma
840	Shankha Vati
841	Shankhapushpi
842	Sharbat Shilajit
843	Shashishekhar Ras
844	Shatari
845	Shatavarex
846	Shatavari
847	Shatavari Granules
848	Shatavaryadi Churna
849	Sheeta Ras
850	Shila Pravanga
851	Shila Sindoor
852	Shilajatwadi Vati
853	Shilajit
854	Shilajit Capsule
855	Shilajitwadi Lauha
856	Shilajitwadi Vati
857	Shine Kesh
858	Shirashuladi Vajra Ras
859	Shishuvin Oil
860	Shivakshar panchan Churna
861	Shivalingi Beej Goli
862	Shodhak
863	Shothari Lauha
864	Shothari Mandur
865	Shree Gopal Tel
866	Shringa Bhasma
867	Shringarabhra Ras

868	Shringyadi Churna
869	Shuddha Gandhak
870	Shukramatrika Vati
871	Shulagajakeshari Ras
872	Shulakuthar Ras
873	Shulashantidata Yog
874	Shulavadhini Vati
875	Shulavajrani Vati
876	Shwas Chintamani Ras
877	Shwas Kalpa
878	Shwashakuthar Ras
879	Siddha Makaradhvaj
880	Siddha Makaradhvaj Vati
881	Siddha Makardhwaj (Sp.)
882	Siddhamol
883	Siddhapraneshwar Ras
884	Simhanad Guggulu
885	Siotone
886	Sitazyme
887	Sitopaladi Churna
888	Sitopalasava
889	Six 'C'
890	Skin Care
891	Smritisagar Ras
892	Smritivardhak Churna
893	Somakalpa
894	Somanath Ras
895	Somaraji Tel
896	Sothari Lauha
897	Sp. Zyme
898	Sparsha
899	Speman
900	Spematone
901	Spina
902	Stresscom
903	Stri-Jeevan

904	Strijivan Sudha
905	Styplon
906	Suddha Gandhak
907	Suddha Shilajeet
908	Sudhamrit
909	Sudhanidhi
910	Sukhada
911	Sundari Kalpa
912	Sundari Kalpa Forte
913	Supari Pak
914	Super Thanda
915	Surakta
916	Surakta syrup
917	Sutashekhar Ras
918	Sutashekhar Ras Gold
919	Sutikavinod Ras
920	Suvarna Oil
921	Suvarnavasantamalati Ras
922	Swadista Pachak
923	Swamala Compound
924	Swapnadoshahari
925	Swarna Bhasma
926	Swarna Vanga
927	Swarnamalini Vasanta
928	Swarnamkshik Bhasma
929	Swasakalpa Vati
930	Sweta Parpati
931	Switran
932	Talisadi Churna
933	Tamra Bhasma
934	Tamrasindur
935	Tankan Bhasma
936	Tapaswini Vati
937	Tapyadi Lauha
938	Tara Mandur
939	Tarakeshwar Ras

940	Tefroliv	970	Vajikara Shakti	1000	Vimliv
941	Tej Ras	971	Vajrakshar Churna	1001	Vipadikant Malam
942	Tensarin	972	Vanari Kalpa	1002	Vishagarbha Tel
943	Tentex Forte	973	Vanga Bhasma	1003	Vishatinduk Vati
944	The Maharshi	974	Vangeshwar Ras	1004	Vishnu Tel
945	Tiger Balm	975	Vanoshadhi Ras	1005	Vishnu Tel (Brihat)
946	Tonex	976	Varatika Bhasma	1006	Vita-Ex
947	Tonoliv	977	Vasa Syrup	1007	Vita-Ex Gold
948	Trailokyachintamani Ras	978	Vasakarishtha	1008	Viton 99
949	Trayodashanga Guggul	979	Vasantakusumakar Ras	1009	Vomiteb
950	Tribhuvanakirti Ras	980	Vasantamalati Ras	1010	Vranarakshas Tel
951	Trichup	981	Vasarishtha	1011	Vridhivadhika Vati
952	Trifgol	982	Vasasava	1012	Vyadhiharan Ras
953	Triphala Churna	983	Vasavaleha	1013	Vyoshadi Vati
954	Triphala Ghrita	984	Vatachintamani Ras	1014	Whoopin
955	Triphala Guggul	985	Vatagajankush Ras	1015	Winter Oil
956	Trishakti Churna	986	Vatakulantak Ras	1016	Yakritpilhari Ras
957	Trishun	987	Vataraj Vati	1017	Yakritplihari Lauha
958	Trivanga Bhasma	988	Vatari Ras	1018	Yasad Bhasma
959	Trivangashila	989	Vatavidhwamshan Ras	1019	Yashtimadhu Churna
960	Tulasi Churna	990	Vatayani	1020	Yavakshar
961	Tulasi Herbal Tea	991	Vedanahar Tablet	1021	Yogaraj Guggul
962	Tulasi Tea	992	Vicks Vapourub	1022	Yogendra Ras
963	Turno	993	Vidangarishta	1023	Youwana
964	Tuvarak Tel	994	Vidangasava	1024	Zandopa
965	U.G. Tone	995	Vigomex	1025	Zanduzyme
966	Unmada Gajakeshari	996	Vigorex	1026	Zefs
967	Ushirasava	997	Vigorex SF	1027	Zucamo
968	UTI-Tone	998	Vigoril	1028	Zymnet
969	Vacha Churna	999	Vimfix	1029	Zymnet Drop

## ANNEXES 7

### Country wise name list of manufacturers of Ayu medicines

Nepali		Indian	
S. N.	Name	S. N.	Name
1	A. G. A	1	Active Herbal
2	Anmol	2	AIMIL
3	Annapurna	3	Albert David
4	Arogya	4	Aseptic Labs
5	Bhushan	5	AVS
6	Bluebell Herbal	6	Ayu Labs
7	Brahma	7	Bacfo
8	Chandra	8	Baidyanath
9	Classical Herbal	9	BAN
10	Dekha	10	Biotech
11	Fleur	11	Charak
12	Gagan	12	Dabur
13	Gorakhnath	13	Desharakshak
14	Gorkha	14	Dhanwantari
15	Himalaya Ay.	15	Dhootapapeshwar
16	Himalayan	16	Divya
17	HPPCL	17	Evcon
18	Jaya Ayurved	18	Growel
19	King Herbs	19	Harbansaram
20	Lomus	20	Herbals APS
21	Lumbini	21	Himalaya
22	Mahakali	22	Himalaya Chem.
23	Mahalaxmi	23	Himani
24	Manakamana	24	Humdard
25	Nepal Herb	25	Laxmi

26	Nepal Herbals	26	Monji Bishram
27	Pandit	27	Mudgal
28	Paras	28	Om Pharma
29	Pashupatinath	29	Ozone Ay.
30	Pokhrel	30	Patiyala
31	Sagarmatha	31	Pharmacon
32	Sanjeevani	32	Prince
33	Shakti Sindhu	33	Rama Drug
34	Shree Krishna	34	Rudradeo
35	Siddha	35	Sandu
36	Siddhartha	36	Sheth Bros.
37	Sita Ayurved	37	Solumiks
38	Subhadra	38	Standard
39	Tansukh	39	Thaneshwar
40	Time Jadibuti	40	TTK
41	Vaidyakhana	41	Vasu
42	Vedachakshu	42	Welcure Drugs
		43	Zandu



## ANNEXES 8

### Types of common Ayu medicines & their manufacturers

S. N.	Manufacturer	Nepali vs. Foreign		Classical vs. Patient		Total
		Nepali	Foreign	Classical	Patent	
1	Dabur	-	259	224	35	259
2	Baidyanath	-	102	78	24	102
3	Vaidyakhana	86	-	78	8	86
4	Gorkha	56	-	44	12	56
5	Himalaya	-	48	-	48	48
6	Arogya	47	-	40	7	47
7	Pashupatinath	25	-	25	-	25
8	Zandu	-	25	15	10	25
9	Desharakshak	-	15	11	4	15
10	Gorakhnath	14	-	14	-	14
11	Siddha	14	-	6	8	14
12	Anmol	12	-	-	12	12
13	Humdard	-	12	-	12	12
14	Charak	-	11	-	11	11
15	Growel	-	11	-	11	11
16	Navadurga	10	-	8	2	10
17	Shree Durga	10	-	8	2	10
18	Dekha	8	-	8	-	8
19	AIMIL	-	7	-	7	7
20	Puja	7	-	5	2	7
21	Sagarmatha	7	-	1	6	7
22	Siddhi Ayurvedic	7	-	1	6	7
23	BAN	-	5	-	5	5
24	Chandra	5	-	2	3	5
25	Fleur	5	-	1	4	5
26	Himalayan Herbs	5	-	5	-	5
27	Manakamana	5	-	5	-	5

28	Pokhrel	5	-	5	-	5
29	Sandu	-	4	1	3	4
30	Annapurna	3	-	-	3	3
31	Brahma	3	-	1	2	3
32	Dhootapapeshwar	-	3	3	-	3
33	Divya	-	3	3	-	3
34	HPPCL	3	-	1	2	3
35	King Herbs	3	-	2	1	3
36	Laxmi	-	3	-	3	3
37	Shakti Sindhu	3	-	-	3	3
38	Solumix	-	3	-	3	3
39	Lumbini Pharma	2	-	-	2	2
40	Rama Drugs	-	2	-	2	2
41	Sheth Bros	-	2	-	2	2
42	Shree Krishna	2	-	1	1	2
43	Vedachakshu	2	-	2	-	2
44	Albert David	-	1	-	1	1
45	Dabur Nepal	1	-	1	-	1
46	Gorkha Udyog	1	-	1	-	1
47	Herbals APS	-	1	-	1	1
48	Pandit	1	-	1	-	1
49	Subhadra	1	-	-	1	1
Total		353	517	601	269	870

## ANNEXES 9

### Samples of classical Ayu medicines collected for study, their manufacturers and packing sizes

S. No.	Name of Manufacturer	Name & Packing Size of Samples Collected from Market for Study				
		Avipattikar Churna (in gm)	Triphala Churna (in g)	Chyavanaprash Avaleha (in gm)	Ashokarishta (in ml)	Yogaraj Guggul (in g/T)
1	Arogya	50	100	1000	450	10g
		100	-	-	-	25g
		200	-	-	-	-
		300	-	-	-	-
2	Baidyanath	60	60	250	450	20g
		120	250	500	680	50g
			-	1000	-	-
3	Dabur	60	120	250	450	60T
		-	500	500	680	120T
			-	1000	-	400T
4	Dekha	100	125	-	-	-
		100 SF	250	-	-	-
		250	250	-	-	-
5	Desharakshak	-	-	-	-	-
		-	-	-	-	-
6	Dhootpapeswar	-	-	450	450	60T
7	Divya	100	100	1000	450	20g
8	Gorakhnath	60	100	-	-	-
		100	300	-	-	-
		300	-	-	-	-
9	Gorkha	100	125	250	-	-
		300	300	500	-	-
			-	1000	-	-

10	Himalaya H.	100	-	-	-	-
		200	-	-	-	-
11	Jyoti Veda	-	-	500	-	-
12	King Herbs	100	100	-	-	-
		<u>300</u>	300	-	-	-
13	Mahalaxmi	100	-	-	-	-
14	Manakamana	100	-	-	-	-
	Mudgal	-	125	-	-	60 T
15	Navadurga	50	100	500	450	-
		100	-	-	-	-
16	Pashupatinath	60	60	250	450	10g
		100	100	500	-	20g
		200	-	1000	-	50g
17	Patiyala	-	-	500	450	20g
18	Pokhareli	60	100	-	-	-
19	Puja	50	-	-	-	-
20	Shree Durga	50	100	500	450	-
		100	-	1000	-	-
		400	-	-	-	-
21	Shree Krishna	50 SF	80	500	-	-
22	Siddha	100	-	-	-	-
		250	-	-	-	-
23	Suri	100	200	500	450	25g
		200	-	1000	-	-
24	Vaidyakhana	100	100	500	450	25g
		100 SF	250	1000	-	100g
		250	-	-	-	-
25	Vedachakshu	100	100	-	-	-
		300	300	-	-	-
26	Zandu	-	200	1000	450	30T
Total No. of Samples:		39	28	27	14	19

*g = gram; T = tablets; ml = milliliter*

## ANNEXES 10

### Sanskrit, Nepali & Latin/English names of constituent-Dravyas of five classical Ayu medicines

S.No	Sanskrit Name	Nepali Name	Latin/English Name
1	Agnimantha	Gineri	<i>Clerodendrum phlomidis</i>
2	Aguru	Agaru	<i>Aquilaria agallocha</i>
3	Ajamoda	Jangali jwano	<i>Trachyspermum roxburghianum</i>
4	Amalaki	Amala	<i>Phyllanthus emblica</i>
5	Amra	Aanp	<i>Mangifera indica</i>
6	Ashoka	Ashok	<i>Saraca asoca</i>
7	Bala	Balu	<i>Sida cordifolia</i>
8	Bhumyamalaki	Bhui-Amala	<i>Phyllanthus niruri</i>
9	Bilwa	Bel	<i>Aegle marmelos</i>
10	Brihati	Bihi	<i>Solanum indicum</i>
11	Chavya	Chavo	<i>Piper chava</i>
12	Chitrakamul	Chituko jara	<i>Plumbago zeylanicum</i>
13	Daruharidra	Chutro	<i>Berberis aristata</i>
14	Devadaru	Devdar	<i>Cedrus deodara</i>
15	Dhanyaka	Dhaniya	<i>Coriandrum sativum</i>
16	Dhataki	Dhayero	<i>Woodfordia fruticosa</i>
17	Draksha	Dakh	<i>Vitis vinifera</i>
18	Ela	Sukumel	<i>Elettaria cardamomum</i>
19	Gambhari	Khamari	<i>Gmelina arboroea</i>
20	Ghrita	Ghiu	<i>Ghee</i>
21	Gokshura	Gokhur	<i>Tribulus terrestris</i>
22	Guda	Gud	<i>Jaggery</i>
23	Guduchi	Gurjo	<i>Tinospora cordifolia</i>
24	Guggulu	Guggul	<i>Commiphora mukul</i>

25	Haritaki	Harro	<i>Terminalia chebula</i>
26	Jeeraka	Jira	<i>Cuminum cyminum</i>
27	Jivaka	Jivaka	<i>Microstylis musifera</i>
28	Jivanti	Jivanti	<i>Leptadenia reticulata</i>
29	Kakanasika	Kaknasa	<i>Leea aequata</i>
30	Kakoli	Kakoli	<i>Lilium polyphyllum</i>
31	Kantakari	Kantakari	<i>Solanum xanthocarpum</i>
32	Karkatashringi	Kakadshringi	<i>Pistacia integerrima</i>
33	Krishnajeeraka	Kalojira	<i>Nigella sativa</i>
34	Ksheerakakoli	Kshherakakoli	<i>Fritillaria roylei</i>
35	Kushta	Kuth	<i>Saussurea lappa</i>
36	Lavanga	Lwang	<i>Syzygium aromaticum</i>
37	Madhu	Maha	<i>Honey</i>
38	Mahameda	Mahameda	<i>Polygonatum cirrhifolium</i>
39	Maricha	Maricha	<i>Piper nigrum</i>
40	Mashaparni	Banmoog	<i>Teramnus labialis</i>
41	Meda	Meda	<i>Polygonatum verticillatum</i>
42	Mudgaparni	Banmash	<i>Phaleolus trilobus</i>
43	Musta	Mothe	<i>Cyperus rotundata</i>
44	Nagakeshara	Nareshwar	<i>Mesua ferrea</i>
45	Nilotpala	Neelakamal	<i>Nymphaea stellata</i>
46	Patala	Padhari	<i>Steriospermum suaveolens</i>
47	Patra	Tejapat	<i>Cinnamomum tamala</i>
48	Pippali	Pipla	<i>Piper longum</i>
49	Pippalimul	Piplako jara	<i>Piper longum</i>
50	Prishniparni	Prisniparni	<i>Uraria picta</i>
51	Punarnava	Punnare	<i>Boehraavia diffusa</i>
52	Pushkaramul	Puskarmul	<i>Inula racemosa</i>
53	Raktachandana	Rato chandan	<i>Pterocarpus santalinum</i>
54	Rasna	Gaitihare	<i>Inula Cappa</i>
55	Rhiddhi	Rhiddhi	<i>Habenaria intermedia</i>
56	Rhishabhaka	Rhishabhaka	<i>Microstylis wallichii</i>
57	Saindhava	Sindhenu	<i>Rock salt</i>
58	Shalaparni	Shalparni	<i>Desmodium gangeticum</i>
59	Sharkara	Chini	<i>Sugar</i>
60	Shati	Shathi	<i>Hedychium spicatum</i>
61	Shunthi	Sutho	<i>Zingiber officinale</i>
62	Shyonaka	Tatelo	<i>Oroxylum indicum</i>
63	Sitopala	Mishri	<i>Sugar candy</i>
64	Sukshmaila	Sukumel	<i>Elettaria cardamomum</i>

65	Talisapatra	Talispatra	<i>Abies webbiana</i>
66	Tila	Til	<i>Sesamum indicum</i>
67	Trivrit	Nishoth	<i>Ipoemoea turpethum</i>
68	Twak	Dalchini	<i>Cinnamomum zeylanicum</i>
69	Usheera	Ushir	<i>Vetiveria zizanioides</i>
70	Vamshalochana	Vamsalochan	<i>Bamboo manna</i>
71	Vasa	Asuro	<i>Justicia adhatoda</i>
72	Vibhitaka	Barro	<i>Terminalia bellerica</i>
73	Vidalavana	Birenun	<i>Black salt</i>
74	Vidanga	Vayuvidanga	<i>Embelia ribes</i>
75	Vidarikanda	Biralikanda	<i>Pueraria tuberosa</i>
76	Vridhhi	Vridhhi	<i>Habenaria sps</i>
77	Yavakshara	Jauko Kshar	<i>Yavakshara</i>
78	Yavani	Jwano	<i>Trachyspermum ammi</i>

## PHOTOGRAPHS



**Data collection from Ayu medical store**



**Samples of Avipattikar Churna**





**Samples of Triphala Churna**



**Samples of Chyavanprash Avaleha**



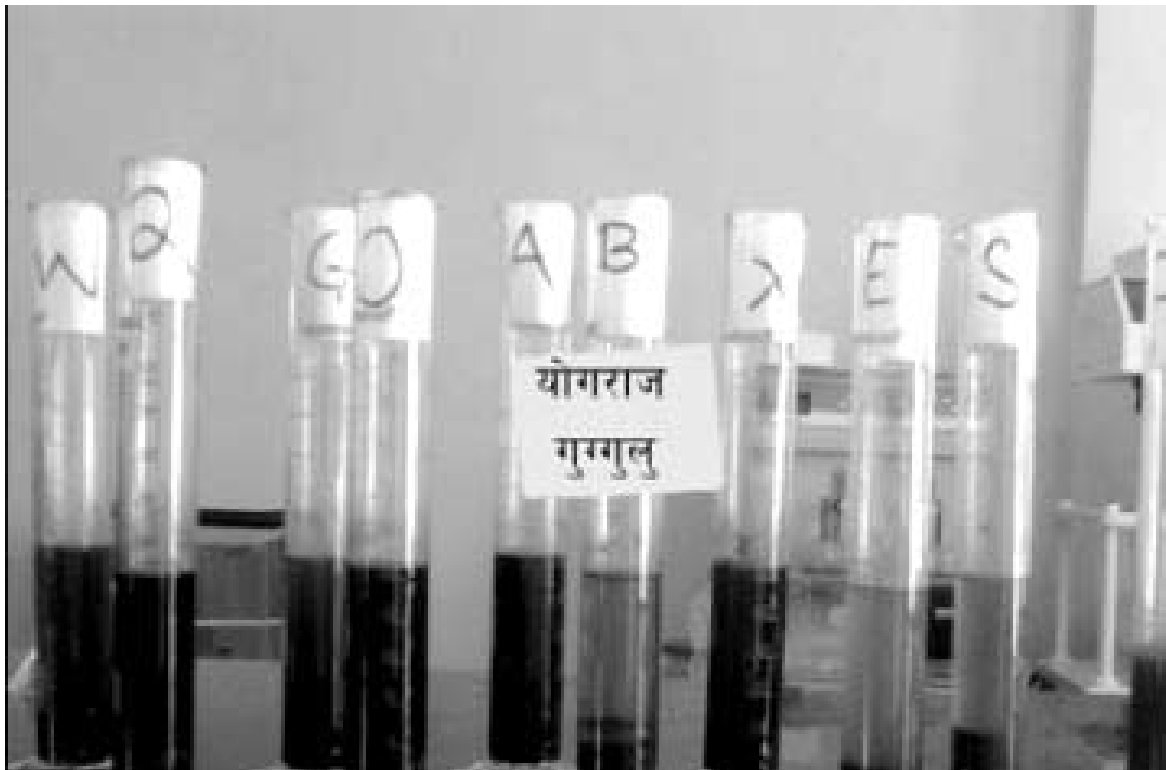
**Samples of Ashokarishta**



**Samples of Yogaraj Guggulu**



**Laboratory test to study properties of medicine**



**Solution of Yoguraj Guggulu prepared for study**



**Sample weight measured by digital balance**



**Evaporation of samples on water bath**