

GOVERNMENT SIDDHA MEDICAL COLLEGE & HOSPITAL
PALAYAMKOTTAI, TIRUNELVELI-02

DEPARTMENT OF NANJU MARUTHUVAM

INDUSTRIAL VISIT REPORT

Place of Visit:

Nethra Pharmaceuticals and Indhumathi Herbals,
4,5,3, Anna stadium road, Beedi Tholilalar Colony,
Melakarungulam, Tirunelveli,
Tamil Nadu 627356

Students:

PG 1st year Department of **NANJU MARUTHUVAM**

PG 3RD year Department of **NANJU MARUTHUVAM**

Staff Accompanied:

Dr. CENTHAMARAI SELVI MD(S)

DR.INDIRA RAJAKUMARI MD(S)

OBJECTIVE OF THE INDUSTRIAL VISIT

The objective of the industrial visit was to understand the pharmaceutical manufacturing process, quality control procedures, and the preparation of Siddha medicines in a pharmaceutical industry setup. The visit also aimed to familiarize students with modern equipment, standard operating procedures, and regulatory guidelines followed in the production of Siddha formulations.

INTRODUCTION

An industrial visit was organized for the MD Siddha students to **Nethra Pharmaceuticals** in order to gain practical exposure to the large-scale manufacturing of Siddha medicines. This visit provided an opportunity to observe various stages involved in drug preparation, packaging, and quality control in a pharmaceutical company.

ABOUT THE INDUSTRY

Nethra Pharmaceuticals is a pharmaceutical manufacturing unit involved in the preparation and distribution of Siddha and herbal medicines. The company follows standard manufacturing practices and maintains strict quality control to ensure the safety and efficacy of their products.

OBSERVATIONS DURING THE VISIT

1.Raw Drug Storage Section

The industry has a separate storage unit for raw drugs and pharmaceutical ingredients. This storage facility is designed to maintain proper environmental conditions required for preserving the stability and quality of raw materials.

Important features observed in the storage area include:

-  Segregated racks for different categories of raw materials
-  Proper labeling and batch identification
-  Monitoring of temperature and humidity conditions
-  Stock management and inventory tracking
-  Storage according to safety and quality guidelines
-  This separate storage unit helps prevent contamination and ensures efficient handling of pharmaceutical ingredients.

2.Raw Material Trading

During the visit, it was observed that the company is involved in the trading and supply of pharmaceutical raw materials. These raw materials include active pharmaceutical ingredients (APIs) and excipients used for the preparation of various pharmaceutical formulations. The company maintains proper documentation for procurement, storage, and distribution of these materials.

3. Drug Preparation Unit

Different Siddha formulations such as powders (Chooranam), tablets (Mathirai), and decoctions were explained. The process of grinding, mixing, and processing of medicinal plants was demonstrated.

4. Machinery and Equipment

During the industrial visit, students were introduced to various machines and equipment used in the preparation and processing of Siddha medicines. The following machinery were observed in the manufacturing unit:

-  **Pulverizer (Grinding Machine)**-Used to grind dried herbal raw materials into fine powder for the preparation of Chooranam and other powdered formulations.
-  **Disintegrator / Crusher**-Used for crushing large raw drugs into smaller pieces before grinding.
-  **Mixing Machine (Blender)**-Used to mix powdered drugs uniformly to ensure proper distribution of ingredients in formulations.
-  **Tablet Compression Machine**-Used for preparing Mathirai (tablets) by compressing powdered medicines into tablet form.
-  **Granulator**-Used to convert powders into granules before tablet preparation to improve flow and compression.
-  **Drying Equipment / Tray Dryer**-Used to remove moisture from raw materials or formulations to improve stability and shelf life.

-  **Sieving Machine**-Used to separate powders according to particle size to maintain uniformity in formulations.
-  **Boiling / Decoction Vessel**-Stainless steel vessels used for preparing Kudineer, Kashayam, and other liquid formulations.
-  **Juice Extractor (Herbal Juice Extracting Machine)**-Used to extract fresh juice from medicinal plants and herbs. The extracted juice is commonly used in the preparation of herbal formulations and certain Siddha medicines.
-  **Edge Runner / Wet Grinder**-Used for grinding herbal ingredients with liquids to prepare paste-based formulations such as Kalimbu and other semi-solid medicines.
-  **Oil Heating Vessel**-Used for preparing medicated oils by heating herbal ingredients with base oils under controlled temperature conditions.
-  **Packaging Machine**-Used for filling, sealing, and labeling medicines in bottles, sachets, or containers.
-  **Weighing Balance**-Precision balances used to measure raw drugs accurately according to formulation requirements.

5. Quality Control Laboratory

The quality control section demonstrated various tests conducted to ensure purity, safety, and standardization of medicines. Analytical methods and documentation procedures were also explained.

6. Packaging Section

The final products were packed using automated packing machines, labeled, and prepared for distribution.

Learning Outcomes

- Gained practical knowledge about the industrial-scale manufacturing of Siddha medicines.
- Understood the processing methods of herbal raw materials, including cleaning, drying, grinding, and mixing.
- Observed various pharmaceutical machinery and equipment used in drug preparation such as pulverizers, mixers, and tablet compression machines.
- Learned about the quality control procedures followed to ensure the purity, safety, and efficacy of medicinal products.
- Acquired knowledge on Good Manufacturing Practices (GMP) and the importance of maintaining hygiene and standardization in pharmaceutical industries.
- Understood the packaging and labeling procedures used to maintain product quality and ensure proper distribution.
- Developed awareness about the integration of traditional Siddha medicine with modern pharmaceutical technology.
- Practical Knowledge of Pharmaceutical Industry Operations - Students became familiar with different departments such as raw material storage, production, and packaging units.
- Improved Professional Confidence - Observing real industrial operations helped students connect theoretical knowledge with practical applications, improving their confidence for future careers in the pharmaceutical and traditional medicine industry.

Conclusion

The visit greatly enhanced our knowledge, confidence, and understanding of the pharmaceutical industry, which will be valuable for our future professional development. It provided practical exposure to the large-scale manufacturing process of Siddha medicines and helped us understand the various stages involved in drug preparation, quality control, and packaging. The visit also enabled us to observe modern pharmaceutical machinery and the implementation of Good Manufacturing Practices in the industry. Overall, the visit enhanced our knowledge about the integration of traditional Siddha medicine with modern pharmaceutical technology and strengthened our understanding of pharmaceutical industrial practices.

Acknowledgement

We express our sincere gratitude to our respected **Principal** for granting permission and encouragement to undertake the industrial visit to Nethra Pharmaceuticals. We also extend our heartfelt thanks to our respected **Faculty members** who accompanied and guided us throughout the visit. Their valuable support helped us gain practical knowledge about pharmaceutical manufacturing processes. We are deeply thankful to the management and **Staff of Nethra Pharmaceuticals** for warmly welcoming us and explaining the various stages of drug preparation, machinery, and quality control procedures in detail. The industrial visit to Nethra Pharmaceuticals was highly informative and beneficial for the students.

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DEPARMENT OF NANJU MARUTHUVAM

Students Were Introduced To Various Machines And Equipment Used In The Preparation And Processing Of Siddha Medicines Like Pulverizer,Disintegrator,Granulator ,Etc...In Presence Of Our Faculty And The Manufacturing Unit Staffs



Nethra Phartmaceutical Managing Partner DR.GOWTHAM KUMAR MD (S) Shared The Extensive Experience And Expertise In The Pharmaceutical Industry.Followed By As A Mark Of Respect,The Managing Partner DR.S.GOWTHAM KUMAR MD (S)Is Being Honoured With Shawl And Gift By Our Faculty



We Are Taking Group Photo With Nethra Pharmaceuticals Managing Partner And All Unit Staffs



As A Part Of The Industrial Visit ,The Raw Material Storage Section Was Observed .He Explained The Safety And Hygiene Practices Maintained In Storage Area

He Explained The Process Of Raw Material Trading ,Including Sources Of Materials,Quality Verification,Pricing,Supplies Coordinationand Distribution To Clients



The Industrial Visit To The Pharmaceutical Industry Was An Enriching Experience That Enhanced Our Practical Understanding Of Industry Operations

We Gained Valuable Insights Into Raw Materials Storage, Handling Trading ,Drug Preparation, Quality Control And Packaging With Quality And Safety Measures

