## Proposal for Developing the KOMPOUNDER Web-based Application

## **Introduction:**

In response to the growing concern over the misuse and unauthorized sales of antibiotics and narcotic drugs, the development of the KOMPOUNDER web-based application is being proposed by the Drugs Control Department. This innovative solution is expected to serve as a comprehensive track and trace tool for antimicrobial and narcotic drugs, ensuring compliance and safeguarding public health through responsible medication use.

#### **Objective:**

The primary goal of the KOMPOUNDER application is to prevent the unauthorized sale and misuse of antibiotics and narcotic drugs. The involvement of registered pharmacists in pharmacies is ensured by the application, and real-time verification of stock and sale is facilitated, thereby enhancing the accountability of drug dispensing.

# Key Features:

1. Track and Trace Functionality:

- Real-time monitoring of antibiotic and narcotic drug inventory is enabled.
- Sales and stock levels are verified by officials to prevent excess usage and illegal distribution.

2.Pharmacist Verification:

- It is ensured that only licensed pharmacists are authorized to dispense these medications, thereby promoting ethical practices in pharmacies.
- 3. Data Transparency:
  - A transparent record of drug sales and inventory is provided to regulatory authorities, ensuring immediate access to crucial data for monitoring compliance.

- 4. Compliance and Enforcement:
  - The quick identification and documentation of irregular activities related to drug sales are facilitated.
  - Prompt action can be takes by regulatory authorities, including the initiation of raids and prosecuting violators of drug laws, without any time lapse.
- 5. Usage Tracking:
  - The application will generate daily and monthly usage matrices to help pharmacists to monitor stock levels and usage trends efficiently.

# **Benefits:**

- Enhances the oversight of antibiotic and narcotic drug sales, contributing to public health safety.
- Deters illegal practices in pharmacies through rigorous monitoring and accountability measures.
- Empowers regulatory bodies with timely information to combat drug misuse effectively.

# Working Method for Web-based Application

1.Installation and Registration:

- The web-based application must be installed on the computer system by registered pharmacist at the pharmacy .
- The registration requires essential details to be inputted, such as mobile number, Aadhaar number of registered pharmacist and location specifics of shops.

2.User Authentication:

- An OTP (One-Time Password) based authentication linked to the Aadhaar system will be used for secure login.
- A user-friendly interface is required for the login process,

incorporating clear branding of the application.

3.Inventory Management:

- The application should facilitate the entry of all stock, including medicines such as antibiotics and narcotic drugs. The details of sale of each antibiotic/ narcotic drugs will be recorded along with patients' information, prescribed doctor, and balance of daily stocks available.
- It is imperative that this stock information is updated on a daily basis to ensure accuracy and compliance.
- Daily/ monthly usage matrices are to be generated.
- 4. Data Security:
  - All sensitive data within the application is required to be stored securely and can only be accessed by the registered pharmacist.
  - Appropriate measures must be implemented to ensure that data is not compromised or accessed by unauthorized users.
- 5. Monitoring & Compliance:
  - The application should automatically notify the respective drug inspector if stock data is not updated as required on a daily basis.
  - There should be specific alerts if the usage of antibiotics exceeds a predetermined threshold (e.g., 100 units).
- 6. Location Tracking:
  - GPS tagging should be integrated into the application to accurately track and confirm the location of stock and pharmacy operations.
- 7. Billing Integration:
  - The application must support PDF uploads for billing purposes, integrating seamlessly with existing billing software.
  - This will streamline the documentation process and improve

efficiency.

- 8. Pharmacist Certification:
  - Provisions for verifying the professional credentials of the registered pharmacist should be included in the web-based application to ensure compliance with regulations and standards..

By following these outlined steps, the web based application can effectively manage pharmacy operations while ensuring compliance, security, and user accessibility.

## **Conclusion:**

The KOMPOUNDER web-based application is viewed as a significant advancement in the management and regulation of antibiotics and narcotic drugs. With the implementation of this robust track and trace system, public health can be protected, and responsibility in the use of these critical medications can be ensured. Support and collaboration in transforming this proposal into reality are sought.