DRUGS CONTROL ADMINISTRATION
Government of Telangana

Cir.No. 14/DCA-Peshi/2023. Dated: 26/08/2023

CIRCULAR MEMO

Sub: Risk based Sampling / Intelligent Sampling – Instructions issued – Regarding.

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It has come to the notice of undersigned that the samples are being lifted by the Drugs Inspectors from the field on a random basis and in a routine manner.

Risk-based surveillance is essential for detection of substandard / NSQ drugs and spurious / counterfeit drugs.

The risk factors/indicators which shall be considered by the Drugs Inspectors for lifting of samples for test/analysis are detailed in the **Annexure**.

All the Drugs Inspectors are instructed to lift samples considering the risk factors / indicators mentioned in the annexure mandatorily.

All the Assistant Directors and Deputy Directors should ensure strict compliance.

Please acknowledge the receipt of the circular memo.

DIRECTOR GENERAL

To
All the Drugs Inspectors in the State.
All the Assistant Directors in the State.

Copy to:
All the Deputy Directors in the State.

ANNEXURE

Intelligent sampling/Risk-based sampling

- 'Substandard' medicines (Not of Standard Quality Drugs) are those drugs which are manufactured by licensed pharmaceutical companies in regulated factories but do not meet the quality standards set out in the pharmacopoeia/Drugs and Cosmetics Act and Rules made thereunder, either because they were poorly made, not adhering to the requirements of Good Manufacturing Practices (GMPs), due to gross-negligence during manufacture or because the products have degraded since manufacture.
- Spurious drugs/Counterfeit medicines/falsified medicines are those drugs which are made, repackaged, or sold by criminals who seek deliberately/fraudulently to misrepresent the identity, composition, or source of the product. They are drug formulations manufactured concealing the true identity of the product and made to resemble another drug, especially some popular brand, to deceive the buyer and cash on the popularity of original product.
- Spurious drugs are usually manufactured by unlicensed anti-social elements but sometimes licensed manufacturers may also be involved.

Risk-based surveillance for substandard / NSQ drugs and spurious / counterfeit drugs is essential.

The following risk factors/indicators shall be considered by Drugs Inspectors for lifting of samples for test/analysis:

1. **Risk indicator: NSQs history:**
    - The manufacturers with repeated NSQ reports shall be identified through NSQ drug alerts published by Drugs Control Laboratory, Telangana, CDSCO (CDL/CDTL/RDTL) and other State authorities. NSQ history of the manufacturer during the past five year period shall be considered as a risk indicator.
    - Manufacturers, who repeatedly manufacture substandard/NSQ drugs, may systematically compromise in quality assurance of products, meaning all their products are at higher risk. Hence drugs manufactured by such manufacturers shall be chosen for sampling from supply chain.
    - Manufacturers located in Telangana with a history of repeated NSQ reports from other States shall be identified to lift samples for test/analysis. Comprehensive inspection of the manufacturing facilities shall be carried out to assess the root cause of failure and other gaps in their quality systems.

2. **Risk indicator : Profitability - Counterfeiting of top drug brands:**
    - Falsifiers want to sell products for which there is a lucrative market, for which a large number of patients are prepared to pay a high price.
    - For any given medicine for which there is a choice of brands, those brands with a combination of a relatively high retail price and a relatively large sales volume will be attractive targets for falsifiers.
    - Sampling of such drugs is essential to detect spurious/counterfeit drugs.

3. **Risk indicator : Contract-manufactured medicines:**
    - Contract manufacturing is a frequent means of lowering production costs (by outsourcing to companies that can achieve economies of scale). The market authorization holder does not always have clear oversight of quality assurance practices at contract manufacturers.
    - Hence several products marketed by reputed companies and manufactured at contract manufacturing sites have been reported as NSQs.

4. **Risk Indicator: Ratio of price to average market price (or) weighted market median for same product (same molecule and dosage form).**
    - This indicates profit pressure/cost cutting. If a particular product sells significantly below the market median, it may signal insufficient investment in quality assurance or other cost-cutting measures.
    - **Irrationally low-priced essential medicines:** Irrationally low prices are a strong predictor for cost cutting.

5. **Risk indicator: Sampling from manufacturing sites - Time since most recent GMP inspection of the facility:**
    - Manufacturing sites are inspected on regular basis. However the risk of detectable deviations from GMP grows with time since last inspection. Hence samples shall be lifted from those manufacturers whose facilities are not inspected in the recent times.

6. **Risk indicator: Sampling from manufacturing sites - Poor compliance history of manufacturer:**
    - Manufacturers with history of GMP & GLP violations signal potential problem of inadequate quality assurance and higher risk of production errors. Hence samples shall be lifted from those manufacturers with history of regulatory violations.

7. **Risk indicator: Sampling from manufacturing sites - Number of years continuously producing the drug:**
    - As manufacturers gain experience and streamline their Standard Operating Procedures in the production of a drug, the risk of production errors falls. Errors in production are more common among newly licensed manufacturers. Hence drugs manufactured by newly licensed manufacturers shall be considered for sampling.

8. **Risk Indicator: Stability of the molecule – Intrinsic Risk of Degradation:**
    - Certain molecules are less stable than others and more sensitive to variations in humidity, temperature, light, or other factors. Less stable molecules are more likely to degrade, becoming substandard before consumption. Sampling of less stable drugs shall be considered.

9. **Risk indicator: Remote/Rural Areas:**
    - Long supply chains and poor infrastructure pose challenges for maintaining temperature and humidity. These factors increase the risk of degradation, especially, for less stable products.
    - For unstable molecules, samples may be drawn from outlets in geographically remote areas.

10. **Risk indicator - High irrational demand:**
    - Under extraordinary circumstances demand for certain medicines surge, for example sudden spike in demand for Remdesivir injection used in the treatment of COVID patients, which are at a high risk for counterfeiting/falsification. Such drugs shall be sampled from the supply chain.

11. **Risk indicator - Life-saving but unaffordable drugs:**
    - Medicines that are known to be life-saving, but unaffordable should be screened for counterfeiting/falsification. Patients with life-threatening conditions are highly motivated to acquire these medicines.
    - High profit margins incentivize their sale, which may diminish due diligence in the supply chain. Sampling of such drugs is essential to detect spurious/counterfeit drugs.

12. **Risk indicator: Drugs sold on internet platforms:**
    - Falsifiers favour internet sales. Sampling of drugs sold through internet is to be considered.

13. **Risk indicator: Feedback / information received from citizens, Healthcare professionals:**

- Products on which efficacy information is received during interaction with Doctors/ Medical Representatives/ Chemists/ Pharmacists/ Consumers/ Media/ Public Domain shall be considered for sampling.

Other risk indicators:

14. Drugs for which proper purchase/sale records are not maintained (No purchase bills / Batch Number or Mfg Dt. or Exp. Dt. does not tally with the purchase bill).
15. Drugs that are usually sold / distributed to doctor-attached counters only and are not available in other general counters.
16. Products which are procured / sold with any schemes /incentives/ huge discounts.
17. Products with visible defects such as injectables /sterile preparations with visible foreign particles / discoloration in the preparation/visible microbiological changes, breaking or cracking of emulsions etc.
18. Drugs found with tampered labels (or) labelled / printed in suspicious manner. e.g. lack of required details, mistakes in spelling, illegible description etc.
19. Narrow Therapeutic Index drugs shall be considered for sampling.
20. Drugs of propaganda cum distribution companies those who market in certain areas /districts / confined to rural and non-urban areas only.