GENERIC DRUGS AND DRUG REGULATION IN INDIA – POLITY

Importance of Generic Drugs

1. **Essential for Affordable Healthcare**:
    - Generic drugs provide a cost-effective alternative to branded medications, improving healthcare accessibility for economically weaker sections.
    - Bioequivalent to branded drugs, they ensure the same therapeutic effects when produced under optimal standards.
2. **Economic Impact in India**:
    - India's capacity for large-scale production and low costs allows it to supply affordable generics globally.
    - Example: The Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) initiative resulted in ₹30,000 crore savings for consumers through generic medicine sales worth ₹5,600 crore over a decade.
3. **Out-of-Pocket Healthcare Expenditure**:
    - With 39.4% of healthcare expenses in India being out-of-pocket (2021-22), generics play a crucial role in reducing financial burdens and enhancing treatment adherence.

Challenges in the Quality of Generics

1. **Efficacy Issues**:
    - Studies, such as the one conducted by PGIMER on itraconazole, revealed significant efficacy gaps:
        - Innovator drugs achieved therapeutic drug levels in 73% of patients within two weeks.
        - Generic versions reached therapeutic levels in only 29% of cases, often requiring dose adjustments or switching to innovator drugs.
    - Poor formulation practices, such as unevenly sized drug pellets, reduce drug absorption and bioavailability.
2. **Manufacturing Variability**:
    - Differences in manufacturing processes impact the physical and chemical properties of generics:
        - Variations in tablet hardness, particle size, and excipient compositions can alter drug dissolution, stability, and therapeutic outcomes.

- Generics often fail to replicate controlled release mechanisms seen in innovator drugs, causing fluctuations in drug levels.

3. **Bioequivalence Thresholds**:
    - Regulatory standards for generics allow pharmacokinetic parameters to range between 80% and 125% of the innovator drug's values.
    - These broad thresholds can be inadequate for drugs with narrow therapeutic indices, leading to inconsistent treatment results or adverse reactions.
4. **Stability Concerns**:
    - Poor enforcement of stability testing, mandated in 2018, undermines the reliability of drugs in diverse climatic conditions.
    - Generics approved before 2018 were not retroactively tested for stability, perpetuating the presence of substandard products.

Systemic Weaknesses in Drug Regulation

1. **Fragmented Regulatory Framework**:
    - Drug regulation in India is decentralised, with significant authority vested in State Drug Regulatory Authorities (SDRAs).
    - This decentralisation results in inconsistent quality enforcement across states and allows manufacturers to exploit weaker oversight (regulatory arbitrage).
2. **Inadequate Central Oversight**:
    - The Central Drugs Standard Control Organisation (CDSCO) can only recommend actions to states, limiting its enforcement power.
    - Resource constraints and insufficient personnel further hinder CDSCO's ability to ensure drug quality.
3. **High Impurity Tolerance**:
    - India's Pharmacopoeia permits higher impurity levels than international standards (e.g., U.S. and EU norms).
    - Recommendations to align impurity standards with International Council for Harmonisation (ICH) guidelines were rejected due to perceived cost concerns.

Recommendations for Improvement

1. **Centralised Drug Regulation**:
    - Transfer critical regulatory functions from states to CDSCO for uniform oversight.
    - Strengthen CDSCO with additional resources, skilled personnel, and a network of central drug-testing laboratories.

2. **Strict Quality Standards**:
    - Align impurity and stability thresholds with global best practices to ensure higher drug safety and efficacy.
    - Enforce uniform stability testing protocols for generics approved before and after 2018.
3. **Reorganisation of CDSCO**:
    - Revamp CDSCO to establish robust inspection and enforcement mechanisms.
    - Implement stringent regulatory protocols to eliminate substandard and counterfeit drugs from the market.
4. **Periodic Reassessments**:
    - Mandate periodic quality reassessments for all generics to ensure compliance with evolving standards.
    - Leverage advancements in analytical technologies for more precise testing and monitoring.
5. **Public Confidence and Education**:
    - Build public trust in generics by ensuring consistent quality.
    - Educate healthcare providers and consumers about the safe use of generics and the differences between innovator and generic drugs.

Insights from Historical Recommendations

1. **Long-standing Reform Proposals**:
    - Committees such as Bhatia (1954), Hathi (1975), and Mashelkar (2003) have consistently called for centralised drug regulation.
    - Despite these recommendations, fragmented regulatory control persists, undermining efforts to improve drug quality.
2. **Urgency of Implementation**:
    - Adopting centralised oversight and stringent quality protocols is essential to restore public confidence in generics.

Conclusion

1. **Generics as Pillars of Healthcare Equity**:
    - Generics are indispensable for affordable healthcare and equitable access to medicines.
    - Ensuring high-quality production standards is crucial to maintaining their affordability and therapeutic efficacy.

2. **Call to Action**:
    - States must relinquish fragmented regulatory control, and India must act decisively to implement reforms.
    - Centralised regulation, stricter standards, and robust oversight can make generics a reliable solution for global and domestic healthcare needs.

Source: https://www.thehindu.com/opinion/lead/making-affordable-generics-more-reliable/article69000243.ece#:~:text=It%20must%20be%20reorganised%20to,effective%20inspection%20and%20enforcement%20mechanisms.