Inventory Management Policy

1. Objective

This policy provides guidelines for efficient inventory management to ensure product availability, minimize holding costs, prevent obsolescence, and meet business demands based on the dataset (dated March 11, 2025). It aligns with avoiding stockouts, reducing costs, improving cash flow, enhancing customer satisfaction, and enabling scalability, per OptiLogic's "5 Important Reasons to Define Your Inventory Policies" (Jan 27, 2025).

2. Inventory Classification

Inventory is classified using ABC analysis based on value and turnover frequency: - **A-items**: High-value, critical items requiring stringent monitoring. - **B-items**: Moderate-value items with steady demand. - **C-items**: Low-value, high-turnover items suited for bulk storage.

3. Stock Types

Stock categories informed by the dataset: - **Raw Materials**: APIs and excipients (assumed inputs for manufacturing). - **Finished Goods**: Packaged medicines. - **MRO Supplies**: Equipment like refrigeration units.

4. Service Level Targets

Service levels balance investment and demand: - **A-items**: 98%. - **B-items**: 95%. - **C-items**: 90%.

5. Safety Stock Levels

Safety stock mitigates risks, calculated from dataset metrics: - **Paracetamol**: 10% of monthly demand. - **Growth Hormone**: 15% due to refrigeration needs. - **Hydrocortisone**: Below reorder point, flagged for action.

6. Replenishment Policies

Strategies optimize stock levels: - **Reorder Point**: Trigger at dataset-defined points. - **Min/Max**: Restock to MaxInventory. - **Days of Supply**: Based on lead time and usage.

7. Lead Time Management

Lead time tracking prevents delays: - **Average Lead Time**: ~27 days. - **Mitigation**: Buffer stock for >30-day lead times.

8. Inventory Accuracy

Ensure precision: - **Cycle Counts**: Weekly (A-items), monthly (B-items), quarterly (C-items). - **Record Updates**: Use LastUpdated (2025-02-11 22:24:02) as a baseline.

9. Storage and Handling

Maintain quality: - **Temperature Control**: Refrigerated (2°C–8°C) or Room Temperature. - **Special Handling**: Protocols for temperature-sensitive items.

10. Performance Metrics

KPIs track efficiency: - **Inventory Turnover Ratio**: Measures stock movement. - **Fill Rate**: Target >95% for A-items. - **Stockout Rate**: Monitor shortages.

11. Continuous Improvement

Regular reviews and technology (e.g., AI forecasting) optimize policies.

12. Generic Names and Characteristics

Below are all generic names from the dataset with key details and their inventory classification:

Generic Name	Unit	Storage Condition	Special Handling	Reorder Point	Classification	Notes
Paracetamol	g	Room Temperature	-	93,150.68	A	High value, critical demand
Ibuprofen	g	Room Temperature	-	61,369.86	B	Moderate value, steady use
Aspirin	g	Room Temperature	-	98,630.14	C	Low value, high turnover
Atorvastatin	g	Room Temperature	-	15,753.42	B	Moderate value, steady demand
Lisinopril	g	Room Temperature	-	28,767.12	B	Moderate value, consistent use
Metformin	g	Room Temperature	-	76,438.36	A	High value, critical demand
Amoxicillin	g	Room Temperature	-	39,726.03	C	Low value, high turnover
Ciprofloxacin	g	Room Temperature	-	36,164.38	B	Moderate value, steady demand
Sildenafil	g	Room Temperature	-	26,849.32	C	Low value, high turnover
Albuterol	g	Room Temperature	-	8,630.14	C	Low value, frequent use
Insulin	IU	Refrigerated	Temperature Sensitive	8,493.15	A	High value, critical storage
Adalimumab	mg	Room Temperature	-	3,972.60	A	High value, critical demand
Rituximab	mg	Room Temperature	-	6,780.82	B	Moderate value, steady use
Erythropoietin	IU	Refrigerated	Temperature Sensitive	5,589.04	A	High value, critical storage
Growth Hormone	IU	Refrigerated	Temperature Sensitive	2,794.52	A	High value, stringent needs
Flu Vaccine	doses	Refrigerated	Temperature Sensitive	23,013.70	A	High value, seasonal demand
Hydrocortisone	mg	Room Temperature	-	3,616.44	C	Low value, high turnover
Alpha Interferon	mcg	Room Temperature	-	2,054.79	C	Low value, frequent use
Beta Interferon	mcg	Room Temperature	-	2,876.71	C	Low value, steady turnover