

# DT BUSINESS ANALYST ASSIGNMENT

## TASK 1: DAILY CLINIC INVENTORY MICRO-AUDIT

### Purpose of the micro-Audit

This system is designed to catch small, daily inventory and billing leaks early in a non-barcode clinic pharmacy, without increasing doctor involvement or staff stress. The objective is pattern detection, accountability, and behaviour correction, not perfect reconciliation.

### STEP 1-Identify High risk medicines (*One-time / 30 mins*)

High risk medicines are selected based on, high daily sales volume, confusing name variants, frequently prescribed and high impact if stock mismatch occur.

Medicine (Master Name)	Why High Risk
Dolo 650	Very high volume, many nicknames
Azithromycin 500	Abbreviations commonly used
Pantoprazole 40	Prescribed across most OPD cases
Cetirizine 10	Frequent repeat usage

Only these medicines are monitored daily to keep the audit lightweight.

### STEP 2-Daily Name-Variation (“Nicknames”) Check (5–10 mins/day)

Daily review of sales entries for high-risk medicines to standardize all name variants into master names.

Entered Name Variants	Mapped To
Dolo, Dolo-k, Dolo kind	Dolo 650
Azithromycin, Azithro	Azithromycin 500

#### What is flagged

- New nicknames or spellings
- Repeated non-standard entries

#### Action

- Update mapping list
- Inform billing staff to use **only master names**

### STEP 3 — Daily Usage Reasonableness Check (with Correction Log) (10 mins/day)

Expected Closing Stock = Opening + Purchases – Total Sales. Differences beyond  $\pm 2\%$  are logged with likely causes and corrected

Medicine	Expected	Actual	Diff	Likely cause	Action Taken
Dolo 650	1460	1440	-20	Emergency dose not billed	Entry corrected
Azithromycin 500	490	480	-10	Partial strip sale	Monitor

### STEP 4 — Random Bill Spot Check (Highly Specific) (5 mins/day)

#### What is done

- Randomly pick **3 physical bills** involving high-risk medicines
- Match them against HMS entries

#### Exact Check Instruction

- Verify if quantity sold matches:
  - Standard strip size (e.g., Dolo strip = 10 tablets)
  - Doctor's usual prescription pattern (e.g., 1-0-1 for 3 days = 6 tabs)

#### Example:

If bill shows **5 tablets of Dolo**, ask why a partial strip was sold.

#### Why this works

- Staff never knows which bill will be checked
- Encourages self-checking without supervision

## STEP 5 — Leakage Visualization (Weekly Awareness Tool) (5 mins/week)

A simple visual is shown to staff once a week:

**Medicine Received → Shelf → Emergency Use → Billing Entry → Cash Collected**

Leakage typically happens at:

- Emergency doses

Partial strip sales

- Name mismatch in HMS
- Missed manual entries

This helps staff **understand why the audit exists**, not fear it.

## STEP 6 — Error & Pattern Tracking (Weekly | 15 mins)

Date	Medicine	Error Type	Repeated?
Aug 1	Dolo 650	Name variant	Yes
Aug 3	Dolo 650	Unbilled dose	No

**Decision Rules**

- Same error ≥ 3 times → Retraining
- Errors across medicines → SOP update

One-off → Ignore

## STEP 7 — End-of-Shift Handover Rule (Critical Addition)

**Action Rule**

**At 8:00 PM**, the billing clerk must:

- Highlight any **Dolo / Azithro** entry they were unsure about during the shift

This reduces next-day audit time from **10 mins to 2 mins**.

## Doctor Escalation Rules

Doctor is involved **only if**:

- Financial impact is material
- Inventory mismatch affects patient treatment
- Same issue persists despite corrections

All routine handling stays with the **Clinic Business Analyst**.

## Optimized Daily Checklist

Time	Task	Goal
0–5 min	Nicknames Scan	Standardize names
5–15 min	Heavy-Hitter Math	Detect mismatches
15–20 min	Blind Spot Check	Enforce discipline
20–25 min	Feedback Loop	Show error log

## Why this system works

- Can run **tomorrow**, not “someday”
- Improves staff behaviour without punishment
- Detects leakage early

Protects doctor's time completely