Pharmaceuticals / PH-01

GDP warehouse: temperature and batch data in one system

Continuous recording of each batch's location, expiry date and storage temperature in a distributor's warehouse.

A medicine must remain fit for use while in the warehouse.

In Uzbekistan, the GDP standard has been implemented in 486 distribution warehouses. From 2026, medicines may be stored only in customs and free warehouses that meet the requirements. When an inspector asks, the temperature history and batch trail must be available immediately.

Conceptual architecture. No operating results are shown.

01 Receiving	Batch · Expiry · Quarantine
02 Storage	Zone · Temperature · Humidity
03 Dispatch	FEFO · Order · Document
04 Report	Temperature history · Excursions · Inspection

At a glance

486 — Distribution warehouses with GDP implemented, according to Sputnik/TIHE. [1]

$2 bn — Medicine imports in 2025 (statement by the Chairman of the Customs Committee). [2]

~$2.5 bn — Size of the medicines and medical devices market (presidential meeting). [3]

November 2026

01 Evidence and context

Who it is for

Distributor owner	Licence and risk.
Responsible pharmacist	GDP requirements.
Warehouse manager	Location and batch.
Quality	Temperature excursions.

Facts and global practice

TIHE (Sputnik)

GMP has been implemented at 61 companies, GDP in 486 distribution warehouses and GPP in 9,450 pharmacies. [1]

kun.uz

Under the Presidential decree of 23 January 2024, from 2026 medicines may be stored only in customs and free warehouses that meet the requirements and provide appropriate storage conditions. [2]

Customs Committee

Medicine imports reached $2 bn in 2025. [2]

Presidential meeting

The country's medicines and medical devices market is approximately $2.5 bn. [3]

The kun.uz report refers to 'GCP requirements' for warehouses; we recommend checking the official text on lex.uz.

02 Where the losses occur

Manual temperature records

Thermometer readings are written in a logbook twice a day.

No excursion alerts

If the temperature goes out of range overnight, it is only noticed in the morning.

Batch and location

The system does not show which batch is in which zone.

Quarantine

Returned and suspect batches are not tracked separately.

How the loss is calculated

Rejected batches	value written off after a temperature excursion
Licence	days of suspension × daily turnover (per day)
Inspection	preparation hours × number of staff (person-hours)
Returns	returned batches (units) × unit price

Illustrative calculations; establish the baseline, units and rates during the site assessment. Avoid counting the same loss twice.

03 Solution architecture

Location, batch and temperature in one record

The MEENTAKA warehouse system manages batches by location and expiry date; temperature sensors record continuously by zone and send an alert when an excursion occurs.

01 Receiving

Batch · Expiry · Quarantine

02 Storage

Zone · Temperature · Humidity

03 Dispatch

FEFO · Order · Document

04 Report

Temperature history · Excursions · Inspection

Modules

WMS: batch, location, FEFO	For GDP warehouses	Commercially available
Temperature sensors and alerts	By zone	Engineering capability
Quarantine and returns	By status	Commercially available
Inspection report	One click	Engineering capability

Each module has a readiness status. Third-party results are not a forecast for your site.

04 Implementation and measurement

01 GDP audit

Zones, sensors, process.

Output: gaps.

02 Pilot

One zone for 30 days.

Output: temperature history.

03 Scale-up

Entire warehouse.

Output: full control.

04 Subscription

Monthly report.

Output: excursion trend.

What is measured

Temperature excursions	Number of events and duration	Sensors
Batch accuracy	Discrepancy	WMS
Expired	Batches	WMS
Inspection readiness	Hours	System

What is needed to start

- Responsible pharmacist
- Zone layout
- List of existing sensors
- Test access to 1C

05 Readiness checklist and next step

01 Is temperature recorded automatically and continuously?	Yes / No / Unknown
02 Is it defined who receives excursion alerts?	Yes / No / Unknown
03 Is each batch's location visible in the system?	Yes / No / Unknown
04 Is FEFO enforced by the system?	Yes / No / Unknown
05 Is the quarantine zone tracked separately?	Yes / No / Unknown
06 Is the retention period for temperature history defined?	Yes / No / Unknown
07 Is sensor calibration documented?	Yes / No / Unknown
08 Is the time needed to prepare a report for an inspector known?	Yes / No / Unknown
09 Are returned medicines tracked separately?	Yes / No / Unknown
10 Is there a designated responsible person?	Yes / No / Unknown

What we do not promise

• Exact timeline and price without an audit

• GMP/GDP certification or inspection outcome

• Approving validation documents ourselves

• Unmeasured results

GDP warehouse audit

We review zones, temperature and batches and show what is missing for an inspection.

• Map of break points

• Pilot plan

• Implementation fee and monthly subscription

Scope, price and schedule are agreed after reviewing the site and its data.

06 Sources and scope

[1] TIHE via Sputnik: GMP at 61 companies, GDP in 486 distribution warehouses, GPP in 9,450 pharmacies. tihe.uz, 03.11.2025.

tihe.uz

[2] «Uzbekistan seeks to cut $2bn medicine imports». kun.uz, 27.02.2026 (under the Presidential decree of 23.01.2024).

kun.uz

[3] Presidential video conference: expanding production in the pharmaceutical industry. president.uz, 05.03.2026.

president.uz

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