GS1 Turkey
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İTS - Turkish
Pharmaceutical Track and Trace System
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- What is İTS?
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**What is İTS?**

İTS is the application of the well-known Track & Trace System into the pharmaceutical industry; it defines the infrastructure constructed to track and trace all units belonging to each pharmaceutical product in Turkey.

**Owner: Turkish Ministry of Health**

**Main features:**
- Unique identification of products and locations
- Use of DataMatrix
- Every single step and action of the unit in the supply chain is saved & stored in a live data source –linear transactions
Phases – Implementation Timeline

- 2007 Project Kick-Off
- 2009 Pilot Application
- 2010 Go Live - Phase 1
- 2012 Phase 2
- 2013 ePrescription & eReporting
### Objectives

**Patient Safety - ensuring reliable supply of drugs to patients**

<table>
<thead>
<tr>
<th>Prevent counterfeiting/ fraud/smuggling and illegal sale of drugs</th>
<th>Prevent barcode and package scams</th>
<th>Prevent double payments by reimbursement agency &amp; Tax frauds</th>
<th>Support rational drug use – Supply data to control market</th>
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</table>
| Efficient product recalls | Prevent double payments by reimbursement agency & Tax frauds | Support rational drug use – Supply data to control market | }
Scope of İTS - Stakeholders

İTS has been designed in order to track drugs at each point of the supply chain.

**Stakeholders:**
- Hospitals
- Health Centers
- Family Physician Centers
- Pharmacies and Pharmacy Warehouses
- Manufacturers
- Importers
- Reimbursement Institutions
Scope of İTS -Products

Products within the scope of the Pharmaceutical Track & Trace System:

- Drugs
- Medical Nutrition Products
Labeling

✓ GTIN:
✓ Serial Number
✓ Expiration Date
✓ Batch Number
Workflow

MANUFACTURER

IMPORTER

Product is marked with DATAMATRIX after serialized by GTIN and SN.
The package and inside product information relations are recorded while aggregating.

MANUFACTURE NOTIFICATION

Order taken.

Package information is uploaded to PTS.

SALE NOTIFICATION

Shipping

Receiving

WHOLESALE

Order taken.

Order Taken

PACKAGED

Shipping

Packaging

SALE NOTIFICATION

WHOLESALE

WHOLESALE

CONSULTATION NOTIFICATION

SALE NOTIFICATION

PATIENT

PHARMACY

INVOICE

SALE NOTIFICATION

PATIENT

The invoices are sent to the reimbursement company at the end of the financial calendar.
Workflow

- Production of units (single box)
- Product is marked with Datamatrix after serialization-by GTIN&Serial Number
- Aggregation(The package and inside product info relations are recorded)
- Production Notification to İTS
- Package information uploaded to PTS according to order/ cargo on its way
- Cargo taken by Wholesaler, Hospital or Pharmacy
- Sale or consumption notification uploaded by Hospital and Pharmacy
Working Principles

The system has been designed according to the product transactions in real environments using linear processes.

Transaction – Notification messages

• Production Notification
• Consumption Notification
• Product Purchase Notification
• Product Return Notification
• Sale Notification
• Sale Cancellation Notification
• Product Transfer Notification
• Product Transfer Cancellation
• Export Notification
• Export Cancellation Notification
• Deactivation Notification
Achievements - Benefits

- is 100% safe in fighting against corruption
- tracks the drugs until they get to the patient
- prevents the sale of counterfeit drugs
- prevents the sale of smuggled drugs
- offers exact solutions for barcode scams
- prevents the repackaging of drugs in unknown places
- provides safe and original drugs for patients
- supports the process of rational drug use
- prevents the resale of the drugs, which have already been sold to the reimbursement institutions
- helps to solve the problems between the pharmacies and the reimbursement institutions
Achievements-Benefits

- Immediate and absolute actions can be taken on recalls after side effects are found
- Market control can be done more effectively and more accurately
- Data mining & reporting
- Prevents tax frauds
Statistics

- Number of stakeholders: 40,000
- Number of drug types in İTS: 18,900
- Number of drug units in İTS: 7,000,000,000
- Number of daily operations in İTS: 45,000,000
- Number of operations per second in İTS: 520
- Response time of system: < 1 sec
Future developments?

In the future, successful implementation of the İTS & lessons learned during the implementation phases can be used to develop traceability solutions for:

• Cosmetics

• Medical Devices (spectacles/eyeglasses –pilot)
Thanks for your attention...

- Visit www.its.gov.tr for more information
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