PHARMACEUTICAL TRACK AND TRACE SYSTEM (İTS)
WHAT IS PHARMACEUTICAL TRACK AND TRACE SYSTEM?

Description

İTS is an abbreviation of Turkish Pharmaceutical Track and Trace System (İlaç Takip Sistemi). İTS is the infrastructure designed for track and trace all medicine in supply chain of Turkey. System covers every medicine box in all steps of supply chain, from production / import until consumption.

First In The World

İTS is first and biggest scope project in the world, that many countries are interested in. As Agency, we accept visits from other countries to introduce and share information about our successful project.
WHAT IS DATAMATRIX?

GTIN + SN = unique identifier

(01) 08691234567890
(21) 111323424679
(17) 100331
(10) X2512061322

(01) GTIN
Global Trade Item Number
(0 barcode)

(21) SN
Serial Number

(17) XD
Expiration Date

(10) BN
Batch Number
GS1 Standards are being used in ITS Project

GTIN (Global Trade Item Number) is used for identification of products (medicine)

GLN (Global Location Number) is being used for identifying stakeholders.
ROLE OF GS1 STANDARDS IN OUR PROJECT

Pharmaceutical Track&Trace System

- LICENCE HOLDER (PRODUCER/IMPORTER)
- WAREHOUSE
- PHARMACY
- CONSUMPTION CENTER
2007  Kick Off
2009  Webservices announced
2010  Project published (Phase 1)
2012  Phase 2 Started
2014  ITS Mobile Application developed
2019  Decision Support System planned to start
İTS allows to track instant medicine stocks in Turkey. And medicine can be supplied for the regions which don’t have necessary medicine.

We can control all stakeholders in supply chain by İTS.

The stakeholders are:
- Producer / Importer
- Pharmaceutical Warehouse
- Pharmacy
- Hospital
Various limitations can be applied by İTS due to the Ministry politics.

For Example: Selling of controlled medicine is limited depending on the risk groups. Illegal medicine have been prevented due to this limit which is applied on medicine movements.

For Example: Supplying quality data for insurance institutes.
RIGHT PRODUCT

1. İTS allows all kind of movements of safe medicines in supply chain. It protects patients and whole supply chain from counterfeit products.

   Estimated saving
   in 2017: 316m TL = 90m $
   in 2018: 391m TL ≈ 72m $
   * based on all type of rejected transactions

2. İTS prevents resale of medicine.

3. İTS expedites recalling of medicine.

4. İTS prevents sale of expired medicine.
### Stakeholders

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licence Holders (Producers/Importers)</td>
<td>412</td>
</tr>
<tr>
<td>Pharmaceutical Warehouses</td>
<td>550</td>
</tr>
<tr>
<td>Pharmacies</td>
<td>26,006</td>
</tr>
<tr>
<td>Consumption Centers</td>
<td>16,312</td>
</tr>
<tr>
<td>Reimbursement Agencies</td>
<td>50</td>
</tr>
</tbody>
</table>

Stakeholders are being tracked by GLN (Global Location Number).

Largest reimbursement agency is SGK (Social Security Institution) and 85% of medicine sold from pharmacies are paid back by SGK.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL STAKEHOLDERS</td>
<td>≈ 42,705</td>
</tr>
<tr>
<td>MEDICINE TYPES</td>
<td>≈ 8,950</td>
</tr>
<tr>
<td>MEDICINE UNITS</td>
<td>≈ 18,272,358,106</td>
</tr>
<tr>
<td>MEDICINE UNITS SOLD BY PHARMACIES</td>
<td>≈ 12,730,093,485</td>
</tr>
<tr>
<td>MEDICINE UNITS RECALLED</td>
<td>≈ 16,829,923</td>
</tr>
<tr>
<td>MEDICINE UNITS IN PHARMACY STOCK</td>
<td>≈ 513,237,738</td>
</tr>
<tr>
<td>DAILY AVERAGE TRANSACTIONS</td>
<td>≈ 79,177,448 (Dec. 2018 avg.)</td>
</tr>
<tr>
<td>TRANSACTIONS IN A SECOND</td>
<td>≈ 916.4</td>
</tr>
<tr>
<td>RESPONSE TIME</td>
<td>&lt;0.5 Second</td>
</tr>
</tbody>
</table>
FOR OUR PEOPLE: İTS MOBILE

Our citizens are able to inquire their own medicine using their smartphones.

Citizens are able to learn the,
- Data Matrix Information,
- Name,
- Expiration Date,
- Price of the Medicine;

Also;
- If the Medicine is Recalled,
- If the Medicine is Registered on the System.

Insecure Medicine Notifications and Adverse Effect Notifications can be made by citizens thru İTS Mobile.
Restricted prescription system is developed for providing dosage control and prevention of medicine abuse of controlled medicine, blood products and hemophilia products.

The information that collected by the system is used to obtain reliable statistical information. This database is also useful for better inspection processes countrywide.

**Our Prescription Groups**

- **Red Prescription Medicine**
  - Narcotics and opiates (Examples: pethidine HCl, methylphenidate, etc)

- **Green Prescription Medicine**
  - Psychotropic medicine (Examples: tramadol, biperiden HCl, etc)

- **Purple Prescription Medicine**
  - Blood products (Examples: human albumin, IgG, etc)

- **Orange Prescription Medicine**
  - Hemophilia medicine (Examples: factor VIII, IX, etc)

- **White Prescription Controlled Medicine**
  - Medicine that have abuse potential (Examples: pseudoephedrine, gabapentin, pregabalin, etc)

- **White Prescription Other Medicine**

**Right Dosage Where Needed**

Restricted prescription system ensures patients to use only necessary medicine at right time and right dosage. For ensuring patient and medicine safety, the system controls the dosage at the prescription step.
The Product Tracking System Project aims at developing infrastructure to track medical devices and cosmetic products manufactured in our country or imported from the production band to the place where they are sold and used.

**Purpose of the Project**

- To keep track of medical devices and cosmetic products.
- To establish a National and Original infrastructure which meets performance requirements to keeptrack of products.
- To contribute to ensuring patientsafety and protection of public health.
- To provide an infrastructure to ensure healthy and efficient execution of inspection services.
- To ensure rapid measures are taken against possible risks to occur during use of the products.
UTS (PRODUCT TRACKING SYSTEM) PROJECT

Tracking and Monitoring
- Product Movements Module
- Product Withdrawal Module

Citizen Oriented Services
- Product Inquiry Module
- Registered-On-Person Product Inquiry Module
- Complaint Reporting Module
- Maintenance and Calibration Inquiry Module

Product Management
- Product Tree Management Module
- Product Management Module

User, Organization and Authority Management
- User Management Module
- Organization Management Module
- Authority Management Module

Supporting Functions
- Document and Certificate Management Module
- Reference Areas Management
- Log Management Module
- Announcement Module
- Scheduled Tasks Module

Market Surveillance and Inspection (PGD) and Warning
- Inspection Activities Module
- Warning Module

Clinical Engineering
- Maintenance and Repair Management Module
- Calibration Management Module
- Technical Personnel Certification Module
- Technical Service Management Module
- Calibration Organization Management Module

Business Intelligence
- Predefined Reporting Module
- Map Assisted Reporting Module

25 Modules
(8 Module Groups)
THANK YOU