# Pharmaceutical Materials Management

**Slingshot Software's Pharmaceutical Materials Management module provides compliant tracking and control of GxP materials**

eStockP tracks material from receipt through transformation to shipment. Signed checklist ensure compliance with SOPs. Transaction can be performed in a browser or wirelessly via the radio frequency interface. A complete audit trail is provided for all material balance and data field changes.

## Rules by Material Type

Support is provided for both GxP and non-GxP materials. GxP materials are received into a "Quarantined" status. These materials are subsequently released by a user in the "Quality Assurance" role. Non-GxP materials are inspected and immediately moved to a "Released" status by a user in the "Warehouse" role.

eStockP manages material in controlled environments. Material status is tracked from Quarantine to Release. Signed checklists ensure SOP compliance at each step in the process. Workorders manage the transformation of components to finished materials.

## Electronic Batch Record Capture

A finished product is associated with a Bill of Materials and a Bill of Resources. Certain components and resources can be flagged as optional. When a work order is opened the BOM and BOR records are copied. Optional components and equipment can be removed. Actual lots and equipment are allocated. When the finished material is confirmed, the components are depleted and genealogy records created.

## Electronic Signature Control

A single or dual signature is required whenever the status or quantity of a material balance is changed. Authentication rules are enforced. Unsuccessful signature locks the user account. All signatures are tracked in the Material Log table. This includes the Signer, Date and Time and Reason code.

## Advanced Lot and Serial # Control

Lot numbers are "system assigned" at receipt for lot-controlled material. A supplier lot number cross reference is maintained as well. If the material is "dated" a manufacturing date and expiration date are entered. A "retest date" defaults based on a company policy. A Lot Aging report highlights lots due to expire in each future period (e.g. week or month). Alerts notify the

appropriate user when lots are approaching expiration or retest date. Certificates of Analysis (COA) can be attached to the lot record. Quality Assurance can extend the expiration date of a lot based on a COA. Lot genealogy is maintained for materials used in work orders. A "where used" inquiry shows the quantity of the lot in each parent lot. "Where used" is also supported for serialized equipment resources.

## Checklist Processing

Checklists allow you to ensure SOP compliance. A checklist is a series of steps a user is required to affirm before a process can be marked complete. Checklists can be associated with a receipt, shipment or work order. Checklists can be modified and versioned by the system administrator. A complete audit trail is maintained for these changes. The system process (receipt, shipment or workorder) will identify the checklist and version. Checklists can require single or dual signature to complete. If two signatures are required, the second user's responses are entered blind. They must exactly agree with the first user's responses before the list is considered complete.

## Flexible Warehouse Configuration

You can control an unlimited number of warehouses having organized them into zones and locations. Within each you can then establish rules for pick, put-away and replenishment at the zone level. Extensive control is provided at the location level including single lot, single product, dedicated product and dedicated unit. Storage types (e.g. ULT-80) can also be associated with a zone or location. Product / location compatibility is automatically checked by the stock locator.

## Automatic "Alerts" Highlight Issues

Exception conditions are monitored by the system. Your "User Role" determines the alerts available to you. Here are some examples:

- Lot Nearing Expiration Date
- Lot Nearing Retest Date
- Time Out of Temp Exceeded for Material Balance
- Material Balance Below Min Target Level
- Late Material Receipts

You receive an alert by "subscribing" to it on your home page. If the Alert condition is true, you will receive a message when you sign in to the system. You can also request delivery via email.

## Drug Pedigree (aka Chain of Custody)

eStockP records and distributes drug pedigree information in compliance with the Drug Supply Chain Security Acts (DSCSA). A Transaction statement with the seven required DSCSA assertions and Transaction history Information documenting changes in ownership is captured for each lot received. The review and acceptance of pedigree information is required before finalizing a receipt. For outbound shipments, a Transaction Statement is "e-signed" as part of the shipment confirmation process. This statement and associated transaction histories are forwarded with the shipping documentation (electronic and/or paper).

### Sell Unit Serialization

DSCSA requires tracking of serial number for each saleable unit of drug material. A Sell Unit checkbox appears in eStockP for each unit of measure on a product's unit conversion table. A range of sell units is recorded for each package received. A "break unit" feature transforms a package into individual sell unit serial numbers (disaggregation), allowing any part of the range to be consumed or shipped. Sell unit serial numbers are also be forwarded to the recipient of material shipped.

### Physical Stock Taking

Material balances can be confirmed by performance a complete physical (aka "wall to wall) or periodic cycle count. When all counts are completed, the system will report any discrepancies and when the count transactions are finalized, inventory levels are adjusted to resolve all acknowledged discrepancies. The adjustment is a movement to a logical location reserved for discrepant inventory. Quality Assurance can review the discrepant material and write it off or require additional counts.

### Stock Replenishment

Slingshot's eStockP and Supply Chain Planning modules are fully integrated, which means you can automatically create replenishment orders to maintain optimal inventory levels at each warehouse. An "order" can comprise purchases, warehouse transfers, manufacturing orders or subcontractor-fulfilled outside processes. Within the warehouse, pick points can be automatically replenished and multiple products can be replenished at a single location.

### Financial Integration

Every change to on-hand inventory is logged and inventory transactions are valued automatically. Slingshot supports LIFO, FIFO, Standard Cost, Replacement Cost and Average Cost valuation methods. Each costed transaction includes the appropriate general ledger accounts. Journals can be easily reported and are passed directly to your accounting system.

### Inter-Warehouse Transfer Control

When transfer orders are entered to move stock between warehouses, the inventory's availability at the ship-from warehouse is verified. When the order is complete, the on-order quantities at the receiving warehouse are updated automatically.

## Other Inventory Management Features

Slingshot's eStockP module provides advanced materials management capabilities including:

- Radio Frequency (RF) Integration
- Bar Coding Facilities (license plates)
- Sophisticated Stock Locator
- Multiple Pick Strategies (for example: pick lots, parallel pick lines, pick and pass)
- Support For Warehouse Containers
- Stock Rotation (FIFO and FEFO)
- Location Velocity Mapping (slotting)
- Outbound Packaging and Parcel Manifesting

## Integrated Report Writer

A complete set of order registers, supplier performance reports and table listings comes standard with the Slingshot's IWM module. All reports and documents were developed using SAP Business Objects Crystal Reports toolset. Formats can be easily modified to meet your specific requirements. New reports can be developed and easily added to the application menus.

## Microsoft Office Integration

All reports can be exported into a range of different formats including PDF and CSV files. They can also be downloaded into MS Excel or MS Word documents.

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