

Balancing Supply and Demand: Veeva RTSM Resupply Optimization

Drug wastage is a critical challenge in clinical trial management. Particularly in specialized therapeutic areas like oncology, where cell therapies, biologics, and targeted small molecules command exceptionally high manufacturing costs, drug waste can quickly jeopardize a trial's budget. At the same time, clinical supply managers operate within a difficult forecasting dichotomy: they must ship enough inventory to ensure that a site never misses a patient dose, yet strictly limit quantities to prevent expensive, short-expiry IMP from sitting unused on a shelf. Striking this balance requires moving away from the rigid, site-wide configurations of traditional RTSM systems, which can lead to over-dispensing, unnecessary waste, or premature drug expiration at clinical sites.

Through an innovative and holistic resupply approach, Veeva RTSM optimizes inventory management, removing the need for lengthy custom updates mid study and enabling users to quickly update settings through the user interface. Thereby ensuring the right drug gets to the right patient at the right time, whilst reducing drug wastage.

Centralized & Configurable Resupply Features

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Resupply Strategy Management

Users can manage site and depot-level strategies from a single dashboard and configure parameters based on location tier:

- **Origin Level:** For manufacturing depots where supply originates in the system.
- **Depot Level:** For secondary depots whose supply is sourced from a manufacturing depot.
- **Site Level:** For clinical sites being sourced by these depots.

Strategies can be added or updated at any stage of the trial through the user interface by authorized end-users, ensuring flexibility after the initial study go-live.

The screenshot displays the 'Supply Strategies' section of the Veeva RTSM interface. It includes a table of strategies and a 'Resupply Values' section with a detailed data table.

Menu	Strategy Type	Strategy Name
10	Site-Level	Site Low Enrolling
20	Site-Level	Site Medium Enrolling
30	Site-Level	Site High Enrolling
40	Depot-Level	Depot Baseline
50	Origin-Level	Origin Baseline

Menu	Display Order	Enabled	Supply Strategy	Site	Country	CTM Type	Initial Supply	Baseline Supply	Alert Level	Min Days Between Shipments	Lead Days	Trigger Days	Target Days	Withdraw Rate %
10	True	Site Low Enrolling				Benzocaine Gel	8	4	2	0	5	5	23	20
11	True	Site Low Enrolling			New Zealand		16	8	4					
20	True	Site Medium Enrolling				Benzocaine Gel	12	6	4	0	5	5	23	20
21	True	Site Medium Enrolling			New Zealand		24	16	8					
22	True	Site Medium Enrolling									7			
23	True	Site Medium Enrolling		101			10	6	4	0	5	5	23	20
30	True	Site High Enrolling					16	10	6	0	5	5	23	20
31	True	Site High Enrolling				Benzocaine Gel	32	20	12					
32	True	Site High Enrolling			New Zealand						7			
40	True	Depot Baseline					120	60	20	0	5			
50	True	Origin Baseline								25				

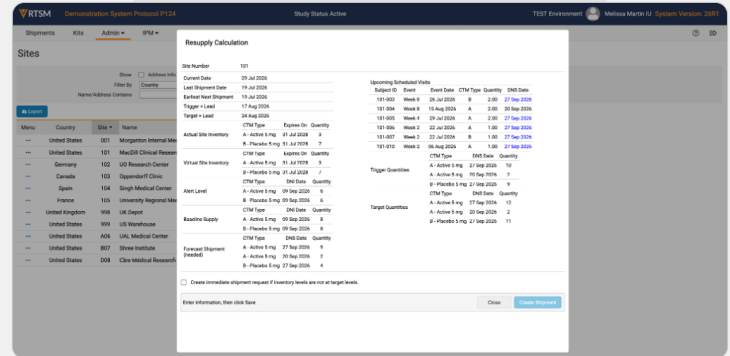
See the **resupply strategy management** in action

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Predictive Resupply Calculations

Veeva RTSM runs resupply calculations nightly, using a combination of **Lead Days**, **Trigger Days**, and **Target Days** to evaluate real-time patient demand against actual site inventory.

- **Automated Order Generation:** The system compares predicted demand with current quantities to automatically generate optimal shipment orders.
- **Shelf-Life Maximization:** The system calculates requirements against available batches, matching upcoming demand with the earliest expiring batches that satisfy DNx parameters to maximize shelf-life utility.
- **Traceability:** All historical calculations are stored in the UI allowing inventory users and supply chain planners to audit historical logic at any time.



See the **resupply calculations** in action

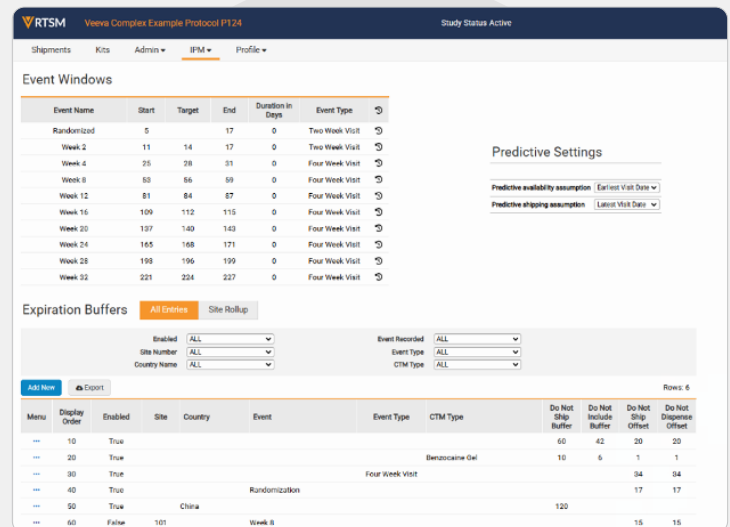
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Flexible Resupply Buffers

To prevent the premature rejection of usable inventory, the expiration buffers table separates applicable DNx parameters (Do Not Ship (DNS), Do Not Include (DNI), Do Not Dispense (DND)) into Buffers and Offsets:

- **Buffers:** Applied to static demand where specific patient timing is unknown (e.g., randomization/enrollment visits, unscheduled visits, or kit replacements).
- **Offsets:** Applied to predictive demand where the schedule of events or specific visit windows are known.

The system permits granular overrides by site, country, event type, or material kit type. This allows a single study to accommodate different visit cadences or unique country-level logistics without needing custom coding.



See the **resupply buffers** in action

Organizational Benefits from Veeva RTSM's Resupply Functionality



Reduced Product Waste

Offsets prevent the system from blindly rejecting batches with short shelf lives when they are clinically viable for an upcoming short-window visit.



Mid-Study Autonomy

Clinical supply managers can configure site overrides or adjust buffer thresholds directly via the user interface without executing costly system change orders.



Full Audit Visibility

Comprehensive rolling history logs preserve calculation states for every site, enabling clinical data and supply teams to verify precisely why an order was or was not generated.

Learn more about how Veeva RTSM minimizes drug wastage and optimizes clinical supply chains.