



Ten Essential Steps to Effective Vaccine Storage



A Carrier Company



Adapting to the transportation and storage needs of Covid-19 vaccines has driven expedited operational shifts across the entire cold chain. Storing doses of the vaccine requires a facility that's ready to meet precise temperature requirements and accommodate the necessary scale of vaccine distribution.

When it comes to vaccine storage, a vaccine-ready stationary monitoring solution represents critical support infrastructure to ensure patient safety.

With a real-time SaaS solution like ColdStream Site, deploying this solution is simple and streamlined. Here are ten essential steps to ensure your facility is vaccine-ready.

1. Prepare Your Facility

The roll-out of vaccines has created operational headaches as spaces adapt to sudden increases in inventory and unprecedented new cold storage requirements.

Many facilities are simply not ready to store Covid-19 vaccines, but that can be solved with the right solution. Real-time storage temperature monitoring is essential, and it's important that the monitoring solution meets regulatory compliance, protects the integrity of the product, and provides full visibility and audit-ready documentation.

Sensitech offers full on-site or remote set-up for validated, stationary temperature monitoring, and vaccine-ready ColdStream Site. This set-up includes hardware installation, software configuration, documentation to meet regulatory requirements, and staff training.

2. Conduct a Thermal Mapping Analysis

Regulatory guidelines recommend a thermal mapping analysis, which identifies the worst-case permanent temperature monitoring positions in a facility. This proves proper placement of sensors and ensures the facility is fully equipped to monitor the storage of vaccines.

With the right expertise this thermal mapping analysis is a quick process that brings a robust foundation upon which you can be confident in the build out of your vaccine storage solution.

Sensitech's Professional Services team brings thirty years of expertise at hundreds of facilities. This service conducts a thorough Thermal Mapping Study and provides an extensive, cost effective report, which will support an audit.

3. Use Scalable Solutions for Fast, Accurate Deployment

Once your thermal mapping analysis is complete, you'll know exactly where to place your sensors to ensure proper coverage. The next step is to install your ongoing stationary monitoring equipment.

With a central Network Controller and wireless sensors, scalable solutions can be as simple as plug-and-play and make setting up your facility monitoring a breeze, no matter how large or small it is.

ColdStream Site is scalable, using wireless sensors and repeaters to cover facilities of any size with accurate, secure temperature monitoring. It's quick to deploy, meets the needs of all storage facilities, and our team of experts offers fully guided on-site or remote installation.

4. Use Smart Solutions to Deploy with Low Infrastructure Costs

Older, traditional facility monitoring solutions prepare the facility to buy all equipment and make a large investment upfront. It is up to the purchaser to take on the responsibility of maintaining it and ensuring the monitoring equipment and servers always meet regulatory compliance. It's expensive to deploy and introduces new workloads to your facility's operating procedures.

In contrast, a modernized Software-as-a-Service solution makes it fast and easy to build a world-class vaccine storage facility and is inexpensive to set-up. This type of service passes on the infrastructure costs of device ownership, upgrades, calibration, and servers to a service provider, an attractive option as facilities upgrade to store vaccines.

Rather than buying expensive equipment up-front, ColdStream Site is provided as a service, ensuring always accurate, always up-to-date, and always calibrated sensors, repeaters, and network controllers, facility-wide.

5. Ensure You Meet Regulatory Requirements

Any storage monitoring set-up must demonstrably show you are in control of your cold chain storage and meet regulatory requirements like cGXP, 21 CFR Part 11 and Annex 11. This is not only a consideration throughout set-up, but for every moment that the facility is in use. Failure to meet these requirements can be costly after an audit.

Compliance with these Life Sciences regulations can be handled by your solution provider, if they have the correct expertise and have built the solution to meet these requirements.

ColdStream Site offers calibrated hardware paired with robust, validated software, both of which are built to comply with these rigorous regulations. Each sensor is individually calibrated and comes with a NIST traceable certificate.

6. Monitor in Real-Time, 24/7

The old days of manually writing the temperature on a log sheet using a wall thermometer are long gone: Sophisticated vaccines require sophisticated monitoring. That means full-site, real-time coverage every hour of the day.

Real-time monitoring lets you monitor the entire storage environment at a glance, at any moment, from anywhere. Issues are identified and the system sends out notifications to responsible individuals immediately. You'll have full documentation for every location affected by temperature exceeding its limit, as well as evidence of how long the limit was breached.

Wirelessly monitor your entire site in real-time and be notified of temperature excursions before they escalate, and maintain full auditable records. Save time and labor costs while staying in the know every hour of the day.



7. Get Alerts Before, Not After, Any Problems Occur

When it comes to Covid-19, product loss is costly. Alerts when temperature excursions occur are essential. Pre-emptive alerts before the excursions escalate are even better, allowing for interventions that can prevent product loss.

Sophisticated real-time monitoring will spot issues before they occur, and provide non-critical alerts—or rather ‘not-yet-critical alerts’—to important stakeholders.

ColdStream Site offers email, text, phone calls, and on-site audible and visual alerts before your situation becomes critical, and provides a full audit trail whenever quality intervention is necessary.

8. Ensure Visibility – with the Right Permissions

Accurate, real-time data should be visible to those who need it, whenever they need it. A central Network Controller provides on-site visibility of all its connected sensors, and also uploads to a secure web portal so it can be accessed off-site, from anywhere in the world.

This solution also allows you to monitor inside locked refrigerators without opening doors, further protecting product integrity, while offering full facility visibility and accountability for supervisors and external stakeholders.

ColdStream Site securely stores your data off-site in the cloud, preventing data loss and allowing secure, remote access to your records from anywhere across the globe. It's accurate, accessible, and consistent from facility to facility.

9. Keep a Detailed Data Trail

The Covid-19 vaccine is one of the most highly publicized and regulated Life Sciences products on Earth. Its storage requirements are famous, and being able to demonstrate that you're meeting them is essential.

A full data audit trail has your back. Real-time monitoring offers more data points than ever—both in frequency (every five minutes, or longer as desired) and in a number of locations. Having complete records of all this data in a validated system, and calibration certificates to prove this data is accurate, is essential.

With rigorous calibration and fully validated cloud-stored data, and a built-in audit trail capturing all data points and quality acknowledgements for when temperature excursions do occur, ColdStream Site ensures your data is as accurate as it is secure.

10. Prepare for Every Eventuality with Redundant Systems

Build in redundant systems so that if the worst happens, your records remain intact, temperature monitoring continues, and you maintain continuous, temperature monitoring to ensure the integrity of every vaccine has been documented and your facility remains viable.

When Hurricane Sandy hit the East Coast of the US in 2012, it took out power in several pharma and logistics service provider (LSP) facilities. The ColdStream Site equipment at these sites continued to collect and store data locally, and when power and communication was restored this data was transmitted to the cloud. No data was lost, with all excursions and corrective actions fully documented.

With ColdStream Site, battery backup and on-device storage ensure that power outages and disasters don't interrupt monitoring. Each sensor stores a minimum of 17 days, and the network controller keeps at least one year of temperature monitoring records.

Prepare your vaccine storage facility with ColdStream Site, the fast-to-deploy scalable real-time monitoring solution that meets all regulatory requirements, with little upfront product purchase costs.





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