

Healthcare Tech

OUTLOOK

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HEALTHCARE TECHNOLOGY KNOWLEDGE NETWORK

PEDIATRICS
EDITION

Jesper Ostergaard Jensen, ▶
President & CEO

AccuVax®

VACCINE MANAGEMENT SYSTEM

THE NEW STANDARD IN
VACCINE MANAGEMENT



AccuVax[®]

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THE NEW STANDARD IN VACCINE MANAGEMENT

By Alex D'souza

It is a typical day at a pediatric practice. Amidst the routine humdrum of patients and caregivers scurrying to and from rooms, sits a refrigerator and freezer full of vaccines. Unbeknownst to the crew of nurses and medical assistants that are retrieving the required vaccines, their frequent door openings to access vaccines are impacting the temperature and conditions within their storage units. Every door opening to obtain vaccines or count every dose destabilizes the temperature inside a refrigerator as cool air escapes and warm air gushes in, possibly rendering the vaccine ineffective. Meanwhile, the buffered temperature probe dedicated and required to monitor the temperature to protect vaccine integrity hardly moves, as it is in a 30ml container (larger than one fluid oz and more than thirty times larger than the vaccines intended to represent). Truth is, aside from the timely and proper administration of vaccines, a caregiver is also responsible for the proper storage and handling of vaccines to ensure their integrity. Unfortunately, even

severe and extended fluctuations often go unnoticed.

Vaccines are fragile biologics, and as such, even the slightest temperature change can alter their molecular structure, reducing their potency and potentially rendering them unfit for use. However, surprising it may seem, a significant percentage of Vaccines for Children (VFC) providers unknowingly expose their vaccines to improper vaccine storage temperatures for hours over the course of a week (OIG: Vulnerabilities in Vaccine Management <https://oig.hhs.gov/oei/reports/oei-04-10-00430.asp>) and thereby compromise the integrity and effectiveness of vaccines.

Vaccines and Dollars Frittered Away

Thousands of dollars are frittered away each year to waste from expired vaccines, temperature excursions, missed billings, and refused doses. "Up to 5 percent of vaccine inventory (as estimated by the CDC and AAP) is not billed for annually, and even the best sites experience a staggering loss of tens of thousands of dollars



◀ **Jesper Ostergaard Jensen,**
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per year,” stresses Jesper Ostergaard Jensen, the president and CEO of TruMed® Systems. As a result, VFC and state agencies have required majority of practices to follow comprehensive inventory processes to manage and lower this loss, forcing many practices to lose time dedicated to their best

resources. Even with all these measures in place, losses remain stubbornly common.

Labor Heavy Process

Meticulously managing vaccine inventory in a compliant manner is critical. A significant portion of

healthcare staff engage in managing vaccines rather than focusing on other critical tasks. Governed by a mission to continually improve healthcare practitioners’ total patient outcomes while lowering costs, TruMed is revolutionizing vaccine and medication management with AccuVax—a point-of-care supply management system that supports product efficacy and practice objectives in immunizations. A purpose-built vaccine storage and handling system, AccuVax provides ideal thermal control along with efficient inventory management, to deliver cost reduction through operational efficiency, automated regulatory compliance, and improved patient safety to physician offices and health centers where vaccines are administered. “We are committed to optimizing the last mile of the cold chain storage and revolutionizing inventory management to help practices address the challenges that they face when it comes to vaccines,” says Jensen.

Hassle-Free Vaccine Management

With AccuVax, TruMed brings the power of modern vaccine management to caregivers’ fingertips and creates immediate financial return. By integrating both a fridge and freezer, digital data loggers, alerting suite, and maintenance into an all-in-one VFC compliant solution, AccuVax safeguards vaccine viability with ideal and guaranteed temperature control. It protects vaccine integrity, minimizes vaccine waste and loss and frees staff time for Top of License Care while providing real-time inventory data that is accurate to the dose to maximize patient safety.

AccuVax offers guaranteed temperature control, something that no other storage system can do, as its door-free design ensures the optimal temperature within the system and eliminates temperature excursions



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during use. Further, with biometric access and unit dose control, AccuVax eliminates inventory loss. All a provider has to do is log into the system with a fingerprint scan, which then records their identification. Following that, the provider can choose to perform any task through a touchscreen user interface—be it dispensing a vaccine, loading or reloading vaccines, checking the inventory, or reviewing the temperature graph.

For instance, loading a vaccine is as simple as scanning the label on the vaccine: the AccuVax analyzes the lot and expiry numbers to open the specific tray where the vaccine will be placed and stored. Not only that, rotating vaccines is also automatic; the intuitive system always dispenses next to expire along with providing nearing expiry alerts. Jensen notes, “It is all done through technology built into the unit -- which, based on the barcode, precisely knows the lot number, the expiry date and also records and associates it with a specific patient. AccuVax equips users with accurate, real time information on the unit or on the intuitive web portal.”

TruMed also empowers users with other benefits in terms of automating inventory control and integrity, streamlining office workflows. AccuVax provides customers with up-to-the-minute vaccine inventory counts, accurate to the dose storage and tracking capabilities. While it usually takes hours to settle vaccine count discrepancies and track the doses, with AccuVax, users have access to real-time, accurate inventory counts. Jensen simplifies, “You can determine who dispensed and administered a Gardasil or maybe an MMR or Bicillin and compare that to billing records to discern where those doses went.” With such robust capabilities at their disposal, caregivers and staff can save valuable time to concentrate on patient care rather than tracking and auditing doses.

“Importantly, we automate 7 out of 10 requirements in the operations guide when it comes to VFC compliance, enabling clients to save considerable staff time to focus on Top of License Care, avoid costly vaccine loss and errors, and facilitate better outcomes,” says Jensen.

The Right Vaccine Every Time, Anytime

The system also addresses common vaccine errors that have caused practices to institute elaborate medication checks and verification steps before ever giving a dose. AccuVax seamlessly integrates with EHR systems to minimize picking errors; stores diluents with refrigerated counterparts to avoid mismatches; locks down and will not dispense expired or recalled vaccines; and is building in patient warnings to check dispenses against patient history and demographics.

To further eliminate avoidable medical errors, the AccuVax unit will facilitate expanded patient safety checks. The system evaluates patient data to ensure that the right vaccines are dispensed based on indicated demographics. For instance, with its age-based validation, AccuVax can recommend doses to pediatricians and healthcare providers in accordance with CDC guidelines for The Advisory Committee on Immunization Practices (ACIP).

To address errors when quickly grabbing vaccines, the system utilizes an intuitive color-coded graphic user interface dose selection and associates each dose with a patient. Integration to the electronic health systems essentially eliminates 100 percent of vaccine selection errors. Upon biometric login, a medical assistant or nurse would find the information on patients awaiting vaccine administration on the AccuVax dispense screen. All they have to do is select the name of the patient from the list and the AccuVax dispenses the



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correct vaccines. After the dose is administered, the state-of-art system can send all information back to the EHR, including the lot and expiry of the vaccines, which eliminates redundant data entry and ensures always accurate billing.

In addition, TruMed is fully HIPAA compliant and SOC2 Type 1 certified, and will be SOC2 Type 2 audit certified by December 2019—the gold standard for security compliance for software-as-a-service (SaaS) companies dealing with patient data.

Real World Impact

To exemplify the benefits that AccuVax brings to the table, Jensen elaborates on an example wherein TruMed worked in close collaboration with Pediatric Associates, headquartered in South Florida, one of the nation's premier private practices with over 50 locations. With a sharp focus on quality-driven processes, Pediatric Associates was looking to ensure maximum efficacy of their vaccines. Moreover, they strove to provide managers and staff the ability to focus on areas of patient care rather than managing vaccine inventory and temperature monitoring. As such, they engaged with AccuVax in an early pilot program. The collaboration gradually expanded from one office, to four offices and 10 units, and is now at all Pediatric Associates sites with over 60 AccuVax units.

Since adopting AccuVax, Pediatric Associates has been able to drastically

reduce staff time allocated in vaccine management and improve time for patient care. One of AccuVax's many testimonials featuring Ray Ramirez, Director of Clinical Services, Pediatric Associates of South Florida, reads, "We wanted to give the managers the ability to be more efficient in the office and not having to manage vaccine inventory and temperature monitoring. With AccuVax vaccine management, time for our managers has reduced drastically, and we have a lot of time for the managers to impact the floor."

Rooted in Innovation

As an innovation-led company initially focused on family and pediatric medicine, TruMed is blending the power of hard science such as refrigeration and robotics with the internet of things (IoT) to revolutionize the way vaccines, cold chain products, and other critical inventory items are managed. The company has invested heavily in R&D to develop the latest in vaccine management, AccuVax ES, which became commercially available from September 1.

Ingrained in the DNA of TruMed is a culture built on three Cs—capable, collaborative, and caring. The TruMed team emphasizes being capable and knowledgeable about the customers' needs and then meeting and exceeding their expectation. Fostering collaboration with clients, the team zeroes in on the best solution

and also enhances their services based on customer feedback. Above all, TruMed truly values being responsive to customers' needs while dealing with them in a caring manner. As an example of this, TruMed also offers round-the-clock help desk service that includes 24/7 monitoring of every installed AccuVax. Customer-centricity is of utmost priority to TruMed. "On top of asking customers what their needs are, we also analyze what is possible and how our solution can dramatically enhance customer experience while bringing more value to them. As a result, we can continue to provide enhancements to our customers," emphasizes Jensen.

TruMed protects more than \$35 million of vaccines every day and has accounted for over 1.5 million vaccine doses administered in 2019. To further supplement the benefits of its vaccine management system, TruMed recently introduced AccuVax ES, which comes with an additional drawer for storing other cold medications such as Bicillin and antibiotics. "We have displayed our new unit to customers at The National Association of Community Health Centers (NACHC) in Chicago and received tremendous support from both existing and prospective customers," Jensen mentions. Besides, TruMed continues to enhance its integration capabilities with EHR, focusing on two-way communication while also adding automatic reordering functionalities. **HT**

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Top 10 Pediatrics Solution Providers - 2019

Children require specialized, compassionate, and comprehensive care that supports every stage of their lives. Often, it is seen that development of medical devices for pediatric patient population lags behind devices for adults.

Despite this battle, many studies are ongoing about the use of technologies in the pediatric space. For one, the use of artificial intelligence (AI) and machine learning (ML) has proved to expedite the diagnoses, drug development, and ensure more safety of the protected health information. In addition, there has been a gradual improvement in patient screening tools, which in turn is leading to effective healthcare for both children and adults. At the core of it, machine learning has been instrumental in things like child imaging and data partitioning, specifically, during the clinical trials.

In the wake of these industry trends, Healthcare Tech Outlook has compiled a list of top 10 pediatrics solution providers to guide organizational leaders

in harnessing the true potential of the available technology in the market. Through our cover story, featuring AccuVax®, we bring to you an organization with the power of vaccine management in the caregiver industry. With its solutions, AccuVax® guarantees temperature control and hygiene for the vaccines and also reduces the vaccine wastage. Another featured company is Atom Medical, providing a cutting-edge neonatal care product with the capabilities of an open warmer and closed incubator. Alongside, Bionix is bringing a refreshing solution for health and personal care to empower and optimizing medical treatment across the world.

We hope this edition of the Healthcare Tech Outlook helps you build the partnership you and your healthcare organization needs to foster a value-driven pediatric patient care.

We present to you Healthcare Tech Outlook, "Top 10 Pediatrics Solution Providers – 2019."

AccuVax® Vaccine Management System

recognized by *Healthcare Tech* magazine as

**TOP 10
PEDIATRICS
SOLUTION PROVIDERS - 2019**

The annual listing of 10 companies that are at the forefront of providing Pediatrics solutions and impacting the industry

Company:

AccuVax® Vaccine Management System

Description:

TruMed is revolutionizing vaccine storage and handling for practitioners to improve vaccine outcomes, optimize patient care, and recognize cost saving

Key Person:

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