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Enhancing Efficiency and Compliance in Milk Banking Operations:

A Case Study of the Mercy Health Breastmilk Bank's Transition to Timeless Medical Milkbank Management System®

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Background

Breastmilk banks play a crucial role in providing essential donor milk to infants. As the demand for these services continues to rise, efficient tracking systems become increasingly vital to effectively manage milk collection, processing, and distribution. Recognising the limitations of its existing tracking software, the Mercy Health Breastmilk Bank (MHBMB) undertook a critical upgrade to align with modern operational and legislative requirements.

This case study explains the comprehensive process of replacing MHBMB's original tracking software with the state-of-the-art Timeless Medical Milkbank Management System® (Timeless Medical MBMS®).

Method

Several key steps were undertaken to select and implement the Timeless Medical MBMS® at the MHBMB.

A collaborative Request for Information (RFI) was initiated, with both MHBMB and Mercy Health (MH) IT services working together. This allowed for a comprehensive evaluation of potential vendors and the various Commercial Off-the-shelf (COTS) breastmilk banking systems available in the market.

Secondly, MHBMB consciously favoured COTS systems as part of its strategy. This preference was driven by the desire to expedite implementation and harness the industry's established best practices.

Subsequently, an extensive evaluation process was conducted to select the Timeless Medical MBMS®. This choice was grounded in its user-friendly interface, robust feature set, and the reliability of vendor support, making it the optimal solution for MHBMB.

Lastly, the active involvement of key stakeholders was instrumental in customising the system to align with MHBMB's unique service requirements. This collaborative effort included regular communication, iterative feedback loops, and thorough user testing, ensuring that the Timeless Medical MBMS® seamlessly met the specific needs of MHBMB.

Results

Implementing the Timeless Medical MBMS® at MHBMB brought about a profound transformation in the operations of MHBMB, yielding substantial time and efficiency gains. This innovative system resulted in operational improvements that translated into significant time savings and enhanced precision in several key areas.

One of the notable achievements was the streamlined process for receiving milk from donors. The Timeless Medical MBMS® introduced a more efficient and systematic approach to this crucial aspect of milk banking operations. This efficiency enhancement has translated into a tangible time-saving benefit for MHBMB, effectively reducing the time required to receive milk from donors by up to one hour. This enhancement expedites the milk collection process, ensuring swift processing and distribution to infants in need.

Moreover, the system brought about a revolution in the pasteurising and tracking process. Automating and centralising these tasks eliminated the need for MHBMB staff to perform duplicative efforts. This automation effectively saved MHBMB staff approximately one and a half hours per pasteurising run, substantially reducing workload and freeing up valuable human resources. This newfound efficiency has allowed MHBMB staff to allocate their time and efforts more strategically, focusing on quality control and donor engagement.

The efficiency gains also extended to the allocation process itself, enabling faster and more precise allocation of donor milk to recipients. The Timeless Medical MBMS® foolproof recipient registration process ensures consistency and secure data collection throughout the system. Additionally, the system's efficiency in allocating Pasteurised Donor Milk (PDM) saves an average of 10-15 minutes per allocation. By providing detailed order sheets with each allocation, the system ensures that recipients receive precisely the milk they need, minimising potential errors or inaccuracies in the distribution process.

Moreover, the Timeless Medical MBMS® offers a secure cloud-based system with offsite availability, enhancing accessibility and minimising dependence solely on organisational systems. This includes the capability to view uploaded documents externally, ensuring data security while enabling external access.

The system's user history tracking and role-dependent modification features optimise operational transparency and security, enabling traceability of actions and customised access levels based on user roles. Additionally, its ability to generate bespoke reports facilitates demographic data collection, offering valuable insights for operational enhancement and strategic decision-making.

In addition to these time-saving measures, Timeless Medical Systems® played a pivotal role in ensuring that the Timeless Medical MBMS® effectively supported increased compliance with regulatory standards at MHBMB. Their collaborative approach and commitment to customisation were instrumental in tailoring the system to meet the stringent regulatory requirements. Timeless worked closely with MHBMB stakeholders to integrate robust data security measures, comprehensive audit trails, and advanced reporting capabilities into the system. This collaborative effort ensured that the Timeless Medical MBMS® met and exceeded the local State legislative and regulatory requirements. Timeless Medical Systems® dedication to providing a system that went above and beyond these standards instilled confidence in MHBMB, enabling them to navigate Victorian State legislative demands and National accreditation standards confidently. Furthermore, the unwavering commitment to compliance reinforced trust with the neonatal units relying on MHBMB's services and the donors contributing to this critical cause. The partnership between MHBMB and Timeless exemplifies the value of collaborative efforts in achieving regulatory excellence and ensuring the highest safety and quality standards in donor milk management.

Challenges

The successful implementation of the Timeless Medical MBMS® at MHBMB was not without its share of challenges. Several factors posed significant hurdles during the process, and effectively managing these challenges was instrumental in achieving the desired outcomes.

1. Impact of COVID-19: The COVID-19 pandemic introduced a dynamic challenge to the implementation process. The pandemic disrupted conventional work patterns, necessitating remote collaboration and adaptation to rapidly changing circumstances. MHBMB and Timeless Medical Systems® had to adjust their implementation strategies to accommodate remote work, ensuring that staff safety and project progress were not compromised. This challenge highlighted the importance of flexibility and adaptability in navigating unforeseen external factors.

2. Expansive Stakeholder Groups: MHBMB is a critical component of the healthcare ecosystem, engaging with a broad spectrum of stakeholders, including healthcare professionals, donors, regulatory bodies, and neonatal units. Managing diverse stakeholder interests and ensuring that the Timeless Medical MBMS® met the unique requirements of each group was a multifaceted challenge. Effective communication, collaboration, and stakeholder engagement strategies were essential in addressing these complexities and aligning the system with the needs of various user groups.

3. Legal Requirements of Data Storage in Australia: Ensuring compliance with Australian legal requirements for data storage and security was paramount during implementation. The stringent regulatory landscape, including data privacy laws, imposed specific obligations on how donor and patient data should be handled and stored. This challenge necessitated meticulous attention to data security measures, robust audit trails, and encryption protocols within the Timeless Medical MBMS® to meet legal requirements. The collaboration between MHBMB, Timeless Medical Systems®, and legal experts was crucial in navigating this complex regulatory landscape.

These challenges underscore the resilience and adaptability of the implementation team and the commitment to overcoming obstacles to achieve operational excellence at MHBMB. The successful implementation of the Timeless Medical MBMS® in the face of these challenges demonstrates the value of collaborative problem-solving and a commitment to meeting the unique needs of a diverse stakeholder ecosystem.

Conclusion

In summary, the successful implementation of the Timeless Medical Milkbank Management System® at MHBMB has streamlined operations and yielded significant time savings. These include up to one hour in the milk-receiving process, an hour and a half per task saved in pasteurising and tracking, and a more precise allocation to recipients, resulting in an average of 10-15 minutes saved per allocation of Pasteurized Donor Milk. These operational improvements underscore the system's value in enhancing efficiency, reducing workload, and ultimately supporting MHBMB's mission of providing safe and high-quality donor milk to infants in need.