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From Milk Bank to Bedside: Why Donor Milk Labeling Needs a Safer Standard

A new collaboration between AngelEye Health and the University of California Health Milk Bank aims to improve donor milk tracking in hospitals

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For fragile neonates and infants, donor human milk can be central to survival, growth, and recovery. In hospital units caring for medically fragile infants, feeding isn't a routine task. It's part of the clinical care plan for patients whose health can change quickly and whose safety depends on accuracy at every step.

The American Academy of Pediatrics' 2026 clinical report emphasizes the clinical value of human milk for hospitalized, very low birth weight infants. It notes that fortified mother's own milk is the preferred source of nutrition in the neonatal intensive care unit (NICU), and that pasteurized donor human milk is recommended when mother's own milk is unavailable, insufficient, or contraindicated.

That clinical reality should shape how donor milk is received, documented, and used once it enters the hospital. The issue isn't that donor milk is unregulated. Milk banks operate under important oversight, including FDA requirements and state-level requirements that may include tissue bank licensing. The remaining gap is more specific. Donor milk information isn't always transferred in a standardized, system-readable format that every hospital can use consistently without a workaround.

For a substance collected from one human body and given to some of the smallest and most vulnerable patients in healthcare, the information attached to each bottle should remain clear and traceable from the milk bank to the bedside.

The Traceability Gap Begins at the Label

The current donor milk workflow relies on many handoffs. Milk banks process and distribute frozen donor milk bottles to hospital partners. Hospitals then receive, verify, document, store, and eventually administer that milk to infants. Each step depends on accurate information about what the milk is, where it came from, how it was processed, and which lot or batch it belongs to.

The volume moving through this system is continuing to grow. The Human Milk Banking Association of North America (HMBANA) announced that its network of nonprofit milk banks dispensed a record 13 million ounces of pasteurized donor human milk in 2025, a 12% increase from the previous year.

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As donor milk use grows, hospitals need labels that can move cleanly into the systems used to receive human milk into hospital units. Proprietary or inconsistent labels can prevent staff from scanning barcode data into existing workflows, leaving them to reenter information by hand or create duplicate labels before the milk reaches patients. Every workaround increases the chance that critical product information will be delayed or entered incorrectly, which can slow a hospital's response if a recall or safety concern arises.

Hospitalized infants, especially in the NICU, have little margin for that kind of uncertainty. Donor milk supports infants whose health can change quickly, and safety systems should reflect that reality. This is why labels must be more than human-readable. They must be parsable, meaning software systems can interpret the information consistently and move it into the right workflow without manual translation.

Donor Milk Deserves Stronger Transparency

A lack of standardized product information would be difficult to imagine in other human-origin workflows. For blood, tissue, and other medical products, hospitals expect a clear chain of custody because patient safety depends on knowing what is being used, where it came from, and how to act quickly if a concern arises.

Donor milk should be approached with the same rigor. Just as important, donor milk banks deserve systems and tools that help



them provide this transparency in a cost-effective and efficient way for the hospitals they serve.

A similar foundation already exists for donor milk. ICCBBA, the organization used worldwide for blood and tissue, which manages the universal ISBT 128 standard, has emphasized the need for clear product information from donation through use. ISBT 128 supports that goal by assigning a globally unique identifier and a shared structure to donor milk products, enabling hospitals and milk banks to use them for safety monitoring.

That shared structure matters because a barcode shouldn't become unreadable or unusable simply because a hospital uses a different internal system than the milk bank that supplied the bottle. Donor milk banks shouldn't need technical degrees or software engineers on staff to create labels that any hospital system can read. They need better support for the critical work they do and the products they provide.

This is not a call to add unnecessary burden to milk banks or hospitals. It's a call to make existing product information easier to transfer, interpret, and use. Donor milk safety depends on clear information, but donor milk banks also need practical tools that make transparency achievable at scale.

Standardization Requires More Than Good Intentions

Milk banks and hospitals aren't ignoring this problem. They've been working within systems that were never designed for the current scale and complexity of donor milk use.

Many US nonprofit milk banks don't have large technology teams or software engineers to build custom labeling tools. ISBT 128 provides the standardized code and language, but milk banks still need a practical way to generate compliant, universally readable labels without building technology from scratch.

A standard only works at scale when organizations can actually adopt it. For donor milk banks, that means a solution must fit into existing workflows, support the information hospitals need, and avoid a disruptive software overhaul. For hospital partners, it means receiving donor milk with barcode information that can be scanned and used in the systems already supporting clinical inventory and feeding workflows.

That's the gap AngelEye Health and the University of California Health Milk Bank are working to close through a powerful tool appropriately dubbed SafeScan. The collaboration brings together AngelEye's hospital workflow and technology experience with UC Health Milk Bank's operational knowledge of donor milk distribution, labeling needs, and hospital partner requirements.

What SafeScan Brings to Milk Banks and Hospitals

SafeScan enables ISBT 128-compliant, transparent barcodes and labels on donor milk, giving donor milk banks a usable system for labeling the milk bottles they prepare and provide to hospitals. For the hospitals they serve, those barcodes support electronic tracking and tracing of donor milk as a product of human origin, helping strengthen patient safety from receipt through bedside use.

The software is designed to be straightforward for milk banks and useful for hospitals. Milk bank data points can be uploaded to the labeling program, printed onto labels, and affixed to donor milk bottles before distribution. Once the bottles arrive at the hospital, the barcode information can support receiving, documentation, inventory management, feeding workflows, and recalls.

Rather than requiring milk banks to build a homegrown system or hospitals to rely on manual entry, the goal is for donor milk from any participating nonprofit milk bank to be scannable and usable by any hospital. Hosted and supported through AngelEye's MilkTracker feeding management platform, SafeScan is designed to make donor milk data more accessible across hospital systems while complementing existing milk bank workflows.

The collaboration also reflects the shared responsibility behind donor milk safety. Milk banks understand processing and distribution realities. Hospitals understand the pressures of receiving and administering donor milk in busy clinical settings. Technology partners can connect those needs through tools that make data accessible at the right moment. When those perspectives come together, transparency becomes easier to put into practice.

The Standard Hospitalized Infants Deserve

For hospitalized infants, safer donor milk tracking depends on making the right information available at the right moment, without adding avoidable complexity for the milk banks and hospitals responsible for each handoff.

The implementation of SafeScan is designed to be straightforward. In practice, a milk bank may create a batch of donor milk that includes 20 to 100 bottles, with each bottle requiring a label that identifies the batch it belongs to. The batch information can be uploaded or entered into SafeScan, which automatically generates a unique QR code and ISBT 128-compliant label for every bottle in that batch. Once those bottles reach hospital partners, care teams can scan and use the barcode data for receiving, documentation, feeding workflows, and recalls.

Donor milk moves through a chain of trust before it reaches the bedside. Protecting the most vulnerable infants takes coordination across milk banks, hospitals, clinical care teams, and technology partners. Each group plays a role, but they need systems that make the right information clear at every checkpoint.

By helping milk banks create universally readable labels before donor milk is distributed, AngelEye Health and the University of California Health Milk Bank are addressing a gap that should no longer be treated as inevitable. For hospitalized infants, safety depends on knowing what each bottle contains, where it came from, and how to act quickly if a concern arises.

The infants receiving donor milk are among the most vulnerable patients in healthcare. The systems protecting that milk should be built with the same level of care. Donor human milk serves as a critical bridge to health for medically fragile infants, supported by a chain of trust that extends from the initial donation to the final recipient. Tools like SafeScan ensure that this connection is reinforced by data as reliable as the milk itself. By replacing fragmented workarounds with a unified language of safety, we honor both the donor's gift and the dedication of the clinical teams who manage it. Protecting the most vulnerable patients requires a system built on total transparency from the first scan at the milk bank to the final check at the bedside.

If you'd like to learn more about the universal barcode project, contact Alison Wolf at akwolf@health.ucsd.edu.

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