



SafeBaby™ Closing the loop on enteral feeding

SafeBaby is a secure feeding and milk management system developed to ensure that every baby in the NICU receives the correct breast milk, donor milk, or formula, risk-free at the bedside. Using two dimensional (2-D) barcode technology, SafeBaby is the only breast milk tracking system that follows ASPEN and the Joint Commission's recommendations by verifying that the correct prescribed nutrition is delivered via approved containers or devices. SafeBaby software developers have successfully created the only easy-to-use system that ensures safe delivery of the best possible nutrition to the patient.

Features and Benefits of SafeBaby

1. SafeBaby prevents mis-feeds by:

- Verifying babies receive HBM from the correct mother
- Protecting babies from being fed spoiled milk
- Eliminating delivery of improperly formulated fortified milk
- Documenting mis-scans, which can be used to improve processes

2. SafeBaby enhances staff productivity by:

- Ease of use, ensuring clinical staff acceptance
- Allowing technicians to effectively operate in a breast milk prep area
- Full integration with clinical applications to allow transfer of census and clinical data
- Protecting staff from the risk of liability while improving job satisfaction

3. SafeBaby maximizes clinical outcome by:

- Keep It Fresh campaign: Fresh HBM offers the patient superior nutrition over frozen
- FIFO (First In, First Out)
- Fortification recipe management: Customize the nutrition to the patient's unique clinical needs
- Spoilage tracking: Preserve HBM inventory by freezing samples prior to spoiling
- Complete feeding history is documented and maintained



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WHY IS TRACKING OF HUMAN BREAST MILK IMPORTANT?

During a 1-year study, 12,186 days of patient care was provided to 1,260 patients in the NICU. The unit's average daily census was 33.4 patients. Not a single day was free of risk for patient misidentification. The mean number of patients who were at risk on any given day was 17, representing just over 50% of the average daily patient population.

*N Hanna, K Ahmed, M Anwar, A Petrova, M Hiatt, and T Hegyi. Effect of Storage on Breast Milk Antioxidant Activity; Arch. Dis. Child etal Neonatal Ed. 89:F518-F520.

**Archives of Disease in Childhood Fetal and Neonatal Edition 2004;89:F518-F520
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How Mis-Feeds Commonly Occur

- One multiple frequently receives formulation for the other multiple
- Babies with similar names
- Failure to verify name on bottle prior to feeding infant
- Milk bottle placed in wrong storage bin
- Failure to verify milk distributed at discharge of infant
- Failure to dispose of milk belonging to discharged infant
- Inconsistencies and variation in bottled breast milk management processes
- Inconsistencies in educating parents about labeling, storing, and transporting breast milk
- Staff errors due to multitasking, increased distractions and rushed work
- Lack of formal and unified processes
- Lack of accountability, with no written policy
- Inadequate communication between patient care units
- Inaccurate breast milk inventory information
- Failure to dispose of spoiled breast milk (spoilage time tracked by SafeBaby)
- Unidentified bottles or feeding syringe

*13. Drenckpohl, M., Bowers, L., Cooper, H. (2007). Use of the Six Sigma Methodology to Reduce Incidence of Breast Milk Administration Errors in the NICU. Neonatal Network, Vol.26, No.3; 161-166.

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SafeBaby Improves Productivity

In most cases, a nurse quickly scans the bottle/syringe and the patient ID barcode to initiate the feed.

- Feeding data is documented and interfaced with clinical documentation systems (i.e. Epic®, McKesson®) which eliminates the need to manually chart feedings
- Staff acceptance and compliance is gained by the protection **SafeBaby** offers against staff liability and patient injury
- Inventory reports by patient allows clinicians to quickly determine the best nutrition (FIFO) available based on fortification, age or container type (syringe, bottle)
- **SafeBaby** is built on a flexible platform that is customized to match current customer processes
- 24/7 **SafeBaby** Support Line
- **SafeBaby** offers an interactive training tool for PRN staff education with training on demand
- The system is designed to be highly configurable to capture fluctuating needs and requirements

How SafeBaby Impacts Clinical Outcome

- Keep It Fresh - with **SafeBaby**, now NICUs have the confidence to store and maintain HBM for up to 48 hours before spoiling
- Refrigeration results in greater antioxidant activity as compared to freezing
- Fortification tracking - **SafeBaby** records fortification for each syringe and bottle
- Fortification tracking includes a label that lists contents applied to each bottle/syringe
- First In, First Out - An inventory report by patient reveals each bottle/syringe location, expiration date and physical status (fresh, frozen, thawed)
- Complete feeding history by time, date, volume, type of feed, fortification, etc.
- **SafeBaby** maintains a bottle and syringe history throughout the process
- **SafeBaby** assures that every child will receive fresh milk that was prepared specifically for them

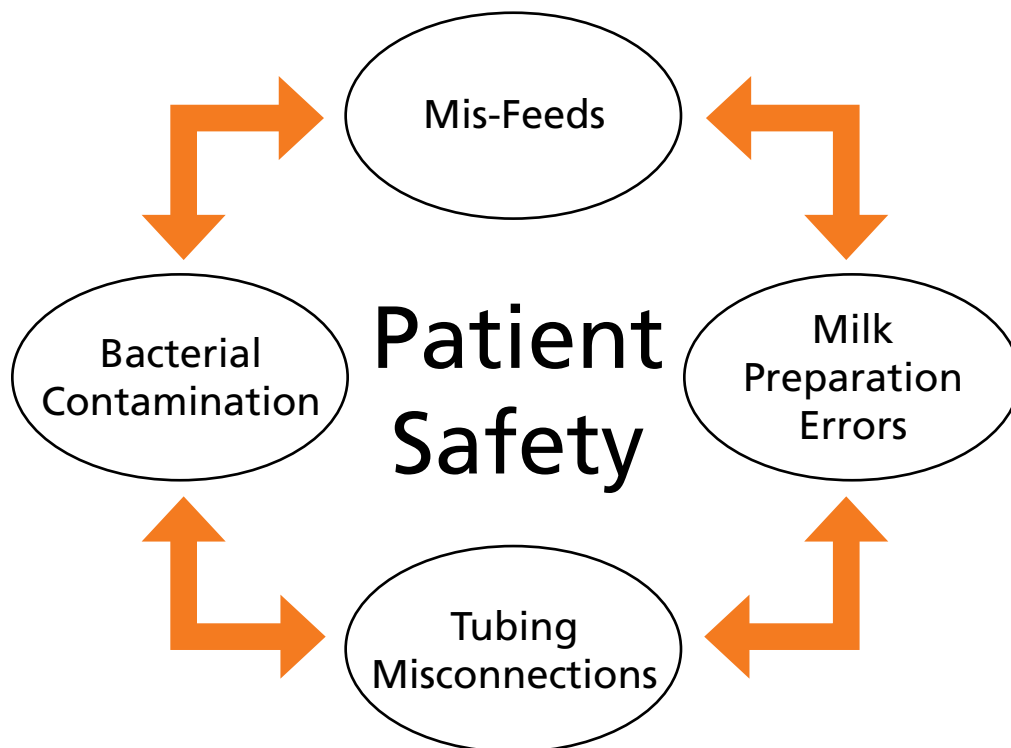
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WHY NEOMED?

Patient Feeding Risks



NeoMed Protects the Patient from all Four Risk Factors

NeoMed is the only manufacturer that offers both devices (enteral syringes, enteral only sets, enteral only feeding tubes) and software to ensure enteral safety.

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SAFEBABY SYSTEM

What do the experts say about about our system?

“NeoMed has a comprehensive Enteral Safety System, including oral dispensers, extension sets, and feeding tubes designed to be incompatible with IV or Luer locking devices.”

“NeoMed oral syringes (also called dispensers) have a 2-dimensional bar code that is used in conjunction with its NeoMed **SafeBaby** breast milk tracking system.”

Peggi Guenter PhD, RN, CNSN, Rodney W. Hicks, PhD, MSN, MPA, ARNP; and Debora Simmons, MSN, RN, CCRN, CCNS. Enteral Feeding MIsconnections: An Update. Nutrition in Clinical Practice Volume 24 Number 3 June/July 2009 325-334. ©2009 American Society for Parenteral and Enteral Nutrition 10.1.177/0884533609335174



NeoMed NeoBottle™
& Oral/Enteral Syringe



NeoMed Enteral Safety System



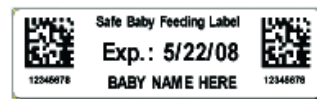
Motorola MC55
Handheld Computer

SafeBaby Additive Label

B466 Doe, BabyGirl
98798798722

Similac - 1.00 packet(s) per 25
Enfamil - 1.00 scp per 25
Human Milk Fortifier - 1.00 pkt per 25
20cal EBM

fortification label



SafeBaby Select 4000D
Direct Thermal Labels for
Bottles and Syringes



IdentiHealth Wristband
Printer Zebra LP 2824z

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FAILED FEEDINGS ERROR LOG

How do we know if **SafeBaby** is working? The highlighted areas are documented feeding attempts where **SafeBaby** prevented the delivery of HBM belonging to another patient.

Rejection Date	Account #	Feeding Label	Type	Rejection Reason	User
5/5/2010 8:09:00PM	P002750678	B3521	B	This baby is not allowed to be bottle fed.	11760
5/5/2010 8:28:00PM	P1012104608	B3304	B	This baby is not allowed to be bottle fed.	11760
5/6/2010 11:53:00AM	P002750678	S1062	S	This syringe does not belong to this patient.	40513
5/6/2010 3:07:00PM		S1078P1008700205	S	This bottle does not exist.	33312
5/6/2010 4:23:00PM	P002750678	S1124	S	This syringe does not belong to this patient.	33312
5/7/2010 11:08:00AM		S1123P1011900058	S	This bottle does not exist.	33312
5/7/2010 4:50:00PM		S1122S1122	S	This bottle does not exist.	102719
5/7/2010 4:50:00PM		S1122P1011900058	S	This bottle does not exist.	102719

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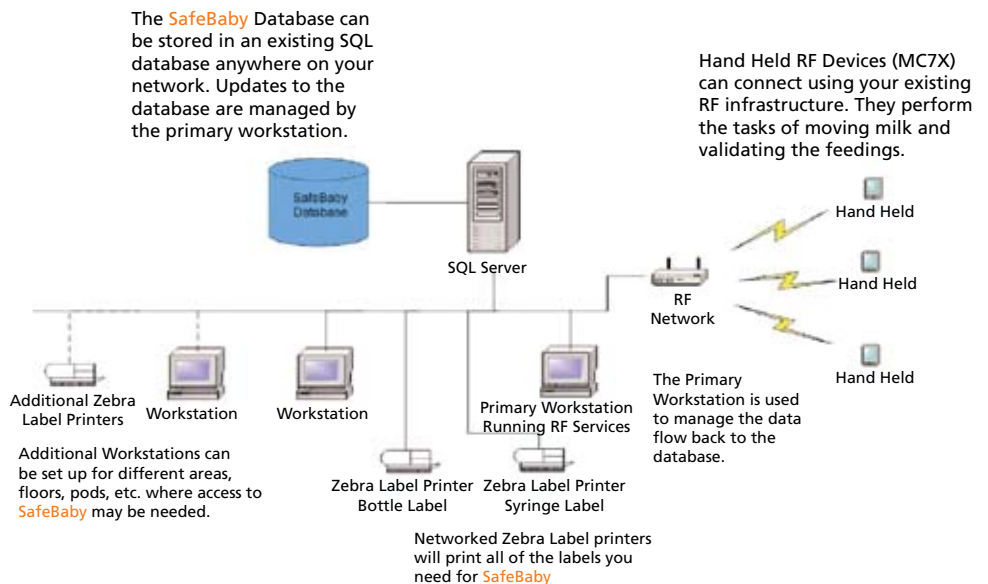
SafeBaby TECHNOLOGY SOLUTION

SafeBaby Network

- Networked Solution
- Operates on your existing wireless network, or if a network is not available, we can supply one for you
- Database Server
- Transaction Engine (Loaded on Primary Workstation)
- PC/Workstation Connections
- Networked Label Printer(s)
- Database Resides on MS-SQL Server
- Can use Existing SQL Database if Available
- Written in Visual Studio with Embedded Crystal Reports
- HL7 Messaging to Hospital Systems Optional
- Receive Patient Data
- Send Feeding Activity Information

SafeBaby Network Diagram

- Server Based System
- Windows PC / server
- Transaction Engine
- Manages RF and Workstation Communication to Database
- Central Database
- Can use Existing SQL Database/Server
- PC Workstations with Scanner
- Hand Held Computers
- Label Printers
- Bedside Computers
- Labels



SafeBaby SYSTEM SOFTWARE

SafeBaby's exclusive software system design for milk tracking and feeding helps maintain patient and practitioner safety that creates a safe, foolproof feeding environment by:

- Creation of Standard Feeding Guidelines
- Eliminating Human Error
- Use of 2-D Bar Coded labels and Software provide a "Go" / "No Go" System that stop errors in real time
- Creation of a safe and complete discharge system through its patient identification component
- Provides accountability through system-specific algorithms and checkpoints
- Feeding software and feeding devices are *Joint Commission* best practices
- Operates within the workflow, and is compatible with hospital information systems and system architecture
- Improves workflow reducing rushed work



SafeBaby Software System

Software designed and supported by Paragon Data Systems.



SafeBaby™

IdentiHealth

Wristbanding infants is a sensitive topic. While hospitals go to great lengths to properly identify infants, staff members are also concerned with the comfort and durability of the bands. The wristband for the NICU patient keeps these challenges in mind by offering a complete line of wristbands for infants.

The IdentiHealth Wristband for **SafeBaby** utilizes a soft, comfortable medical-grade infant wristband that:

- Can be color coded for allergy and infection indicators
- Has a "glove friendly" adhesive
- Can be sized accordingly for a preemie
- Can be placed directly on the patient or in a visible location
- Is antimicrobial and can be used in a sterile or aseptic environment

Patent-pending antimicrobial coating was proven in independent lab tests to eliminate from the band Methicillin-resistant Staphylococcus Aureus (MRSA) Type II, Type III and Type IV. The bands are additionally protected from S. aureus, P. aeruginosa, and E.coli. The infant wristbands feature:

- Soft nylon material that is perfect for delicate skin and an adjustable design that fits the smallest patients
- Flat surface print area to insure ease of scanning
2" x 0.75" print area and a 0.5" x 6" band
- Pressure sensitive with a quick and easy adhesive tab closure Z-Band QuickClip features a secure clip closure



IdentiHealth Wristband Printer