PREEMiE
Preterm Feeding Management System

Report On Fortification

📋 Prescription

Date:	2020-10-27
Infant ID:	17003029361765
Infant Weight:	950 g
Milk ID:	1223446678
Milk Volume Prepared:	100 mL
Milk Volume Administered:	70 mL
Prolact +6 (30mL)	1 bottle
Standard Multicomponent Fortifier	
Abbott Liquid Protein Fortifier	6.6 mL
Protein Fortifier	
Prolacta CR	1 mL
Lipids Fortifier	
Polycose	1.2 g
Carbohydrates Fortifier	

🍼 Nutrition Administered

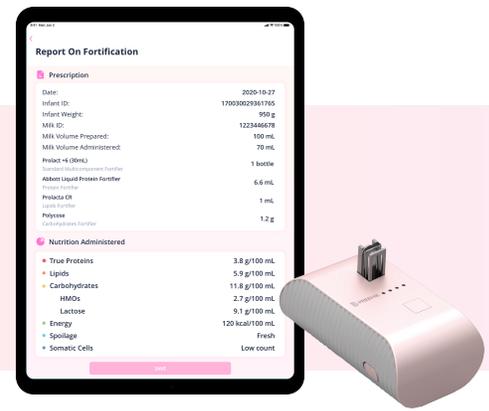|	
• True Proteins	3.8 g/100 mL
• Lipids	5.9 g/100 mL
• Carbohydrates	11.8 g/100 mL
HMOs	2.7 g/100 mL
Lactose	9.1 g/100 mL
• Energy	120 kcal/100 mL
• Spoilage	Fresh
• Somatic Cells	Low count

Preemie Fortification software for Neonatal Intensive Care Units

This software works with the Preemie sensor, and allows Neonatal Intensive Care Units to test milk composition, freshness, and safety, to automatically suggest the fortification needed by each preterm infant, and to store and keep track of key data about infants' nutrition and growth.

The user enters all the data about the infant (ID, age, comorbidities) and growth (weight, head circumference, length) through a user-friendly interface. The operations to analyse the milk are simple and fast: place a couple of drops of homogenized breast milk in the Preemie cuvette, insert it into the holder, and then into the Preemie sensor. Upon pushing the scan button, the nutritional values of the analysed milk appear in the software in a few seconds. The software automatically calculates the suggested targeted fortification based on standard guidelines, the nutritional values of the milk analysed, and the infant's needs. The user can modify the suggested fortification to target it to each infant's nutritional requirements. The fortification prescribed and the actual intake of the infant are saved in a report that can be exported or printed, and used as a reference for a future prescription of the infant's feeding.

● Features of the Preemie Fortification App

- Designed for targeted fortification in Neonatal Intensive Care Units, and to operate the Preemie sensor* for human milk analysis;
- Runs on an Android or iOS tablet, connects to the Preemie Sensor via Bluetooth, and requires an Internet connection to perform milk analysis and store the data;
- Automatically collects and stores the results of the analysis, with the following parameters being measured:
  - Composition: Total Protein, Total Lipids, Lactose, Total Human Milk Oligosaccharides, Energy
  - Freshness (based on bacteria count)
  - Safety (based on somatic cell count)
- Automatically calculates the suggested fortification based on reference parameters (infant's weight, guidelines and fortifiers);
- Customisation of the suggested fortification, based on the specific needs of each preterm infant;
- Fortification guidelines, fortifiers used, and introduction to fortification can be customized based on the specific procedures of the NICU;
- Enter and store data about infant nutrition (prescription and actual intake) and growth, in compliance with GDPR;
- Produce, save, and export reports on infants' nutrition and growth.

  The Preemie sensor is a Near InfraRed spectrometer calibrated with human milk. The sensor is fast, portable, lightweight, and easy to operate.

1 NURSE at the NICU — Receiving

2 NURSE at the NICU — Testing with Preemie sensor — Testing

3 NURSE at the NICU — Receiving test results

4 NURSE at the NICU — Fortification

Data flows in the cloud in real time

Preemie cloud

Protein / Lipids / Lactose / HMOs / Spoilage / Somatic-Cell Count — Main Server — Scan Database / User Database / Milk Database