

Real-Time Intelligence for Equitable Care

NICUtrition[®] Equitable Care Intelligence (ECI) is an EMR-integrated platform for monitoring disparities in care and associated outcomes of preterm infants in the neonatal ICU (NICU). ECI enables unit-wide and patient-level tracking of key care performance metrics by race and ethnicity throughout the patient journey from birth to discharge. EMR-integration enables real-time tracking so the NICU team can assess the provision of care against unit targets or preset standards. ECI uses longitudinal visualizations and side-by-side comparison of nutrition metrics (e.g. advancement rates, time to full enteral feed),

care delivery (e.g. ROP screening), discharge statistics (e.g. breastmilk at discharge), and patient outcomes (mortality and morbidities). The Nutrition and Care Delivery dashboards allow clinicians to identify which patient populations require additional attention during their stay in the NICU. The Discharge and Outcomes dashboards track infant mortality and comorbidities and disparities at discharge for a hospital. Finally, the Patient Report gives a snapshot of an individual infant's health during his/her NICU stay relative to peers.

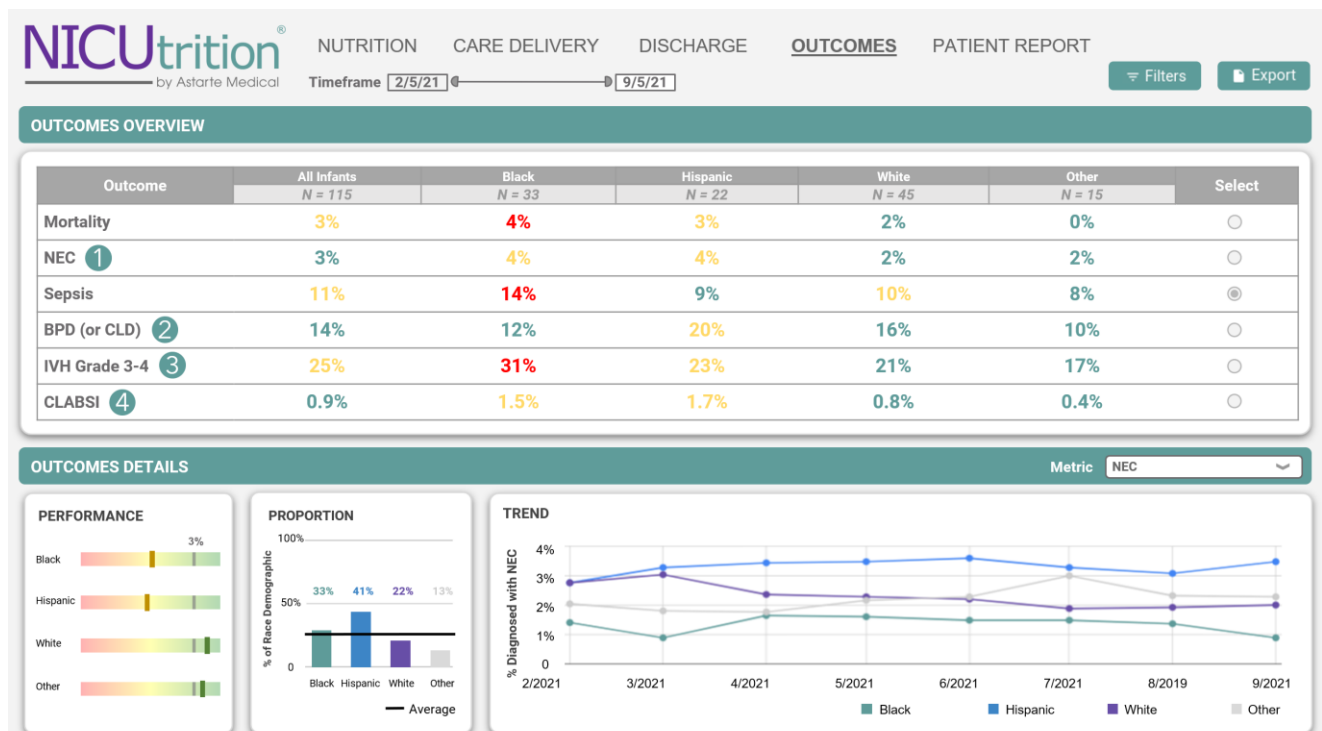
KEY BENEFITS

- Real-time comparison of patients by race and ethnicity against unit-selected care standards to assess the equity of care while in the NICU.
- Comprehensive dashboards allow easy identification of individual patients or groups that require additional support or further assessment.

PATIENT OUTCOMES

Identifying Disparities in Care

NICUtrition[®] ECI's Outcomes dashboard is a comprehensive summary of severe morbidity and mortality (SMM) by race and ethnicity. It enables hospitals to identify disparities, design quality improvement programs, and track the impact of such programs over time.



① Necrotizing Enterocolitis (NEC) ② Bronchopulmonary Dysplasia (BPD)
③ Intraventricular Hemorrhage (IVH) ④ Central Line-Associated Bloodstream Infection (CLABSI)

PATIENT REPORT

Individual Status Updates

Individual patient reports are generated to give clinicians a complete view into an individual patient's care delivery compared to target values, NICU averages, the infant's peers by gestational age, and race or ethnic peers so disparities can be addressed while the infant is in the NICU.

NICUtrition [®] by Astarte Medical					
NUTRITION CARE DELIVERY DISCHARGE OUTCOMES PATIENT REPORT					
Patient BG100929 Date 01/12/2021					
	Patient Value	Target Value	NICU Average	Race Average	
Nutrition Milestones	RTBW: ⑤	6.1 days	< 7 days	8 days	10 days
	First Fortification:	8.3 days	< 8 days	9 days	12 days
	First Full EN:	13 days	< 13 days	13 days	15 days
	First Oral:	--	< 60 days	64 days	71 days
Care Delivery Data	Days of ABX: ⑥	0.8 days	< 1 days	2 days	2 days
	Central Line Days:	9.9 days	< 10 days	24 days	26 days
	Days NPO: ⑦	0 days	< 2 days	3 days	3 days
	Days Until ROP Screen:	--	< 35 days	37 days	39 days
Latest Feed Data	Total Rate (Past 24 hrs):	160 ml/kg/day	160 ml/kg/day	140 ml/kg/day	145 ml/kg/day
	PN Rate (Past 24 hrs):	--	--	20 ml/kg/day	15 ml/kg/day
	EN Rate (Past 24 hrs):	160 ml/kg/day	160 ml/kg/day	120 ml/kg/day	130 ml/kg/day
	Avg. Density (Past 24 hrs):	24 Cal/oz	24 Cal/oz	22 Cal/oz	21 Cal/oz
Growth Data	Type Proportions (MBM/DBM) ⑧	24% / 76%	-- / --	67% / 33%	31% / 69%
	Latest Weight (%ile):	998 g (33%)	1,042 g (39%)		
	Birth Weight (%ile):	776 g (39%)	--	800 g	750 g
	Δ Z-Score:	-0.17	--	-0.25	-0.42
	Growth Velocity (7 Day):	13.7 g/kg/day	--	15 g/kg/day	12 g/kg/day
	Growth Velocity (from RTBW):	14.4 g/kg/day	--	22 g/kg/day	21 g/kg/day
Timestamp: 1/12/2021 at 4:04 PM Timeframe: 4 years (1/12/2017 to 1/12/2021) ID: BG100929 MRN: 18829382 Room: 31 Bed: 2 GA at Birth: 26 2/7 DOL: 17			n = 25	n = 68	DOL Range: +/- 1 Race: Hispanic GA at Birth Cohort: 26 < 28 Weeks
n = 357					

- ⑤ Return to Birthweight (RTBW) ⑥ Antibiotics (ABX)
⑦ "Nil per os" – Nothing by mouth (NPO) ⑧ Mother's Breastmilk/Donor Breastmilk (MBM/DBM)

CARE MONITORING

Ability to Rapidly Pinpoint Disparities

NICUtrition[®] ECI monitors unprecedented aspects of preterm infant care for equitable delivery including comparison of days NPO (*nil per os*, nothing by mouth), administration of antibiotics, proportion of maternal breastmilk (MBM), and time to full enteral feeding by race and ethnicity. All dashboards are structured to support easy reporting to hospital quality officers, payers, and care collaboratives.

NICUtrition[®] INTEGRATION

Feeding and Growth Analytics

Equitable Care Intelligence is fully integrated with Astarte Medical's NICUtrition[®] platform. NICUtrition[®] is a real-time, clinical decision support tool designed to address challenges regarding feeding and nutrition management in the NICU. Clinicians can review retrospective data to correlate outcomes with feeding practices and unit protocols, including protocol compliance. Protocol utilization can drive standardization, address resource disparities within a unit (e.g. lack of dedicated registered dietitian), and reduce length of stay.

For more information, email: sales@astartemedical.com