

# Neonatal Eating Outcome Assessment Score Sheet: I. Pre-Feeding Behaviors

Version 5.8

Study ID/Infant's Name:

Evaluation Date:

DOB:

Day of Life:

Breast or Bottle Feed:

EGA at Birth:

Current PMA:

Rater Name:

Item	Choices	Postmenstrual Age (weeks)											Score
		30	31	32	33	34	35	36	37	38	39	40+	
<b>I-1. Arousal/State Organization*</b>	A. Unable to rouse to state 3, even with stimulation B. Short periods of arousal with stimulation C. Prolonged arousal sustained after stimulation <b>D. Wakes spontaneously</b>	A=3 B, C, D=5		A=1 B,C,D=5	A=1 B=3 C, D=5	A, B=1 C, D=5			A, B, C=1 D=5				
<b>I-2. Physiological Stability*</b>	A. Poor physiological stability B. Intermittent periods of physiological stability with energy depletion C. Intermittent periods of physiological stability without energy depletion <b>D. Physiological stability</b>	A=3 B, C, D=5		A=1 B=3 C, D=5	A, B=1 C, D=5	A, B=1 C=3 D=5			A, B, C=1 D=5				
<b>I-3. Respiratory Support*</b>	A. Ventilated B. Non-invasive respiratory support C. Minimal respiratory support <b>D. Room air</b>	Not Scored											--
<b>I-4. Rooting and Grasp*</b>	A. No response B. Weak or unilateral root and grasp C. Root and grasp with stimulation <b>D. Spontaneous root and grasp</b> E. Brisk response, frantic response, or avoidance	E=1 A=3 B, C, D=5			E=1 A, B=3 C, D=5	A, E=1 B=3 C, D=5	A, B, E=1 C, D=5						
<b>I-5. Initiation of Sucking*</b>	A. No initiation of sucking B. Requires moderate stimulation C. Requires minimal stimulation <b>D. Spontaneously initiates sucking</b> E. Active avoidance	E=1 A=3 B, C, D=5		A, E=1 B=3 C, D=5	A,E=1 B=3 C, D=5			A,B,E=1 C,D=5	A,B,E=1 C=3 D=5				
<b>I-6. Tongue</b>	A. Flaccid or non-responsive B. Flat with some tongue cupping C. Elevated and retracted <b>D. Tongue cupping with central groove</b> E. Deviated to side, tongue thrusting, or tongue bunching	E=1 A, B, C=3 D=5	A, E=1 B, C=3 D=5	A, B, E=1 C=3 D=5	A, B, E=1 C=3, D=5			A, B, C, E=1 D=5					
<b>I-7. Non-Nutritive Sucking</b>	A. Absent B. Arrhythmic C. Intermittent burst-pause pattern <b>D. Normal burst-pause pattern</b> E. Prolonged burst-pause pattern	E=1 A, B, C, D=5		E=1 A=3 B,C, D=5	E=1 A,B=3 C,D=5	A,E=1 B=3 C,D=5	A,E=1 B,C=3 D=5	A,B,E=1 C=3 D=5	A, B, C, E=1 D=5				
											<b>TOTAL: (Section 1)</b>		

## Abbreviated Form:

If only Section I was scored, there is a range of scores from 6-30. Use the following criteria to score:

6-20 Feeding Challenge

21-26 Questionable

27-30 Normal

# Neonatal Eating Outcome Assessment Score Sheet: II. Oral Feeding & III. Observations at the End of Feed

Item	Choices	Postmenstrual Age (weeks)											Score	
		30	31	32	33	34	35	36	37	38	39	40+		
<b>II-1. Suck-Swallow-Breathe Coordination</b>	A. Unable to coordinate sucking swallowing and breathing; Immediate sequelae B. No independent suck/swallow/breath sequencing; able to coordinate only when provided interventions C. Able to feed with intermittent interventions; independent swallow/breath sequence <b>D. Independently demonstrates appropriate suck/swallow/breathe sequence</b>	A, B, C, D=5			A=3 B,C,D=5	A, B=3 C, D=5		A=1 B=3 C, D=5	A=1 B,C=3 D=5		A, B=1 C=3 D=5			
<b>II-2. Sucking Burst Length</b>	A. No sucking burst B. Minimal sucks per burst <b>C. Appropriate sucks per burst</b> D. Long pattern of sucks per burst	D=1 A, B, C=5			A, B=3 C, D=5				A, B= 1 C, D=5					
<b>II-3. Suction</b>	A. No suction B. Minimal suction <b>C. Normal suction.</b> D. Excessive suction	D=1 A, B, C=5			D=1 A, B=3 C=5	A, D=1 B=3 C=5		A, B=1 D=3 C=5						
<b>II-4. Oral Tone</b>	A. Flaccid B. Decreased tone <b>C. Adequate tone for feeding</b> D. Increased oral tone, clenched jaw, and/or pursed lips	D=1 A=3 B, C=5		A, D=1 B, C=5			A, D=1 B=3 C=5			A, B, D=1 C=5				
<b>II-5. Quality of Sucking Movements</b>	A. Abnormal sucking pattern B. Moderate discoordination C. Mild or intermittent discoordination <b>D. Mature, organized sucking pattern</b>	A=1 B, C, D=5				A=1 B=3 C, D=5			A,B=1 C=3 D=5					
<b>II-6. Behavioral Response to Feeding</b>	A. Active avoidance or significant feeding stress responses that interfere with feeding B. Limited positive engagement/comfort during feeding with moderate disengagement C. Mostly positive engagement/ comfort during feeding with minimal disengagement <b>D. No discomfort and positive engagement</b>	A=1 B, C, D=5				A=1 B=3 C, D=5			A, B=1 C=3 D=5					
<b>II-7. Fluid Loss</b>	A. Significant fluid loss B. Moderate fluid loss C. Minimal fluid loss <b>D. No fluid loss</b>	A, B, C, D=5				A=1 B=3 C, D=5			A, B=1 C, D=5					
<b>II-8. Swallow**</b>	A. High risk (clear, clinical indications of aspiration) B. Moderate aspiration risk C. Mild aspiration risk <b>D. Normal swallow</b>	A=3 B, C, D=5						A, B=1 C=3 D=5			A, B, C=1 D=5			
<b>II-9. Respiratory Control During Feeding**</b>	A. Respiratory compromise with markedly increased work of breathing B. Moderately increased work of breathing C. Mildly increased work of breathing <b>D. Appropriate respiratory control during feeding</b>	A=3 B, C, D=5			A, B=1 C, D=5			A, B=1 C=3 D=5			A, B, C=1 D=5			
<b>III-1. Feeding Completion</b>	A. Stops due to physiologic instability B. Stops due to fatigue (unable to continue) or feeder stopped the feeding C. Discomfort <b>D. Completed feeding</b> E. Completed feeding, but demonstrates discomfort after feeding	C=1 A, B, D, E=5				C, E=1 A, B, D=5			A, B=3 C, E=1 D=5			A, B, C, E=1 D=5		
<b>III-2. State Maintenance</b>	A. Reaches state 3 or 4 only briefly B. Maintains state 3 or 4 for 4-7 minutes C. Maintains state 3 or 4 for 8-10 minutes <b>D. Maintains state 3 or 4 &gt;10 minutes</b> E. Maintains high level of arousal (state 5 or 6) that interferes with feeding	E=1 A, B, C, D=5			E=1 A=3 B, C, D=5			A, E=1 B=3 C, D=5		A, B, E=1 C=3 D=5		A, B, C, E=1 D=5		
<b>III-3. Volume Consumed***</b>	A. No milk consumption B. Minimal milk consumption C. 1/4 milk consumption D. Half of feeding consumed E. 75% of feeding consumed <b>F. Full feeding</b>	A,B,C,D,E,F=5				A=3 B,C,D,E, F=5	A,B=3 C,D,E, F=5	A=1 B=3 C,D, E,F=5	A=1 B,C,D=3 E,F=5	A, B=1 C, D=3 E, F=5	A, B, C, D=1 E=3 F=5			
<b>TOTAL: (From Section 1)</b>							<b>TOTAL: (Sections 2 &amp; 3)</b>							

## Full Form:

If Sections I, II, and III were scored, there is a range of scores from 18-90. Use the following criteria to score:  
 18-57 = Feeding Challenge                      58-76 = Questionable                      77-90 = Normal

**TOTAL SCORE: (Sections 1, 2, & 3)**

Baseline feeding performance without interventions will best inform whether the infant has feeding challenges as outlined above. If adaptive equipment or external supports are used during the assessment, feeding performance may be improved in the context of those interventions.



Neonatal Eating Outcome Assessment Score Sheet: IV. Non-Scored Items (**FOR BREASTFEEDING ONLY**)

Section IV - Items Not Scored - BREASTFEEDING ONLY	<p><b>IV-15. Mother's Milk Supply***</b></p> <p><u>Volume:</u>  <input type="checkbox"/> Minimal to none  <input type="checkbox"/> Some  <input type="checkbox"/> Diminished  <input type="checkbox"/> Adequate  <input type="checkbox"/> Overabundance  <input type="checkbox"/> Unknown</p> <p><u>Type:</u>  <input type="checkbox"/> Small amounts of colostrum or within first few days after birth and milk has not come in  <input type="checkbox"/> Mix  <input type="checkbox"/> Mostly milk with some colostrum  <input type="checkbox"/> Mature milk</p> <p># ml supply each day: _____ # of days since birth of infant: _____  <input type="checkbox"/> Indicate if the Supplemental Nursing System is Used</p>	<p><b>IV-20. Breast(s)</b></p> <p><input type="checkbox"/> Infant fed on only one breast:  <input type="checkbox"/> Right <input type="checkbox"/> Left</p> <p><input type="checkbox"/> Infant fed on both breasts:  <input type="checkbox"/> Right first <input type="checkbox"/> Left first</p> <p>If fed on both breasts:                  Time on first: _____ Time on second: _____</p> <p><input type="checkbox"/> Switched breasts a second time</p>
	<p><b>IV-16. Pumping Schedule</b></p> <p><input type="checkbox"/> N/A - mother not expressing milk  <input type="checkbox"/> Mother pumps intermittently in order to offer a bottle, stimulate milk production or save milk  <input type="checkbox"/> Mother with a need for milk expression due to infant not yet orally feeding  <input type="checkbox"/> Mother not pumping routinely  <input type="checkbox"/> Mother expressing her milk 1-3 times per day  <input type="checkbox"/> Mother expressing her milk 4-6 times per day  <input type="checkbox"/> Mother expressing her milk 7+ times per day</p> <p>Average length of time pumping: _____                  Approximate time from start of pump until let-down: _____                  Amount expressed at each session: _____                  Type of pump used: _____</p>	<p><b>IV-21. Maternal Anatomy</b></p> <p><input type="checkbox"/> None  <input type="checkbox"/> Breast implant  <input type="checkbox"/> Breast reduction  <input type="checkbox"/> Large breasts  <input type="checkbox"/> Breast engorgement  <input type="checkbox"/> Flat nipples</p> <p><input type="checkbox"/> Breast piercings  <input type="checkbox"/> Only one breast  <input type="checkbox"/> Other breast surgery  <input type="checkbox"/> Small breasts  <input type="checkbox"/> Breast infection  <input type="checkbox"/> Inverted nipples <input type="checkbox"/> Nipple pointing down</p>
	<p><b>IV-17. Maternal Comfort Level</b></p> <p><u>Pain/Discomfort:</u>  <input type="checkbox"/> No discomfort or pain in breasts.  <input type="checkbox"/> Pain of 7-10 with breastfeeding  <input type="checkbox"/> Pain of 4-6 with breastfeeding  <input type="checkbox"/> Pain of 3 or less OR report of discomfort without pain</p> <p><u>When:</u>  <input type="checkbox"/> Only at beginning of feeding <input type="checkbox"/> Throughout the feeding  <input type="checkbox"/> Between feedings</p>	<p><b>IV-22. Maternal Complications</b></p> <p><input type="checkbox"/> None  <input type="checkbox"/> Postpartum hemorrhage  <input type="checkbox"/> Hypothyroidism  <input type="checkbox"/> Polycystic Ovarian Syndrome  <input type="checkbox"/> Reynaud's Syndrome  <input type="checkbox"/> Retained placenta</p> <p><input type="checkbox"/> Iron deficiency anemia  <input type="checkbox"/> Overweight/Obesity  <input type="checkbox"/> Hyperthyroidism  <input type="checkbox"/> C-section delivery  <input type="checkbox"/> Illicit drug use _____</p>
	<p><b>IV-18. Breastfeeding Contraindications**</b></p> <p><input type="checkbox"/> HIV  <input type="checkbox"/> Infant galactosemia  <input type="checkbox"/> Untreated brucellosis  <input type="checkbox"/> Untreated active tuberculosis  <input type="checkbox"/> Human T-cell lymphotropic virus  <input type="checkbox"/> Illicit drug use  <input type="checkbox"/> Alcohol use within the last 2 hours</p> <p><input type="checkbox"/> Chemotherapy  <input type="checkbox"/> Radiation therapies  <input type="checkbox"/> Taking antiretrovirals  <input type="checkbox"/> Ebola virus  <input type="checkbox"/> Has herpes simplex lesions on breast</p>	<p><b>IV-23. Managing Breastfeeding</b></p> <p><input type="checkbox"/> Mother manages tasks of breastfeeding well without incidence</p> <p>Difficulty motorically managing task of breastfeeding:  <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Physical impairment: <input type="checkbox"/> Yes <input type="checkbox"/> No                  Lack of skill: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> Need for multiple attempts to aid success <input type="checkbox"/> Maternal adaption <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p><b>IV-19. Mother's Flow Rate</b></p> <p><input type="checkbox"/> Unknown  <input type="checkbox"/> Within first few days of birth and milk not yet in  <input type="checkbox"/> Slow <input type="checkbox"/> Average <input type="checkbox"/> Excessive</p>	<p><b>IV-24. Maternal Motor Factors</b></p> <p><input type="checkbox"/> Infant not lined up to breast  <input type="checkbox"/> Mother's shoulders elevated  <input type="checkbox"/> Tension throughout body</p> <p>Maternal adaption <input type="checkbox"/> Yes <input type="checkbox"/> No                  Maternal adaption <input type="checkbox"/> Yes <input type="checkbox"/> No                  Maternal adaption <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p><b>IV-25. Maternal Environmental Factors</b></p> <p><input type="checkbox"/> Nipple pointing down  <input type="checkbox"/> Nipple soft and needing shaping  <input type="checkbox"/> Nostril occluded</p> <p>Distractions:  <input type="checkbox"/> Mom answers phone or texts  <input type="checkbox"/> Television</p> <p><input type="checkbox"/> Other children demanding attention  <input type="checkbox"/> Having conversation</p>	<p><b>IV-26. Mother-Infant Dynamics</b></p> <p><input type="checkbox"/> Infant with low activity  <input type="checkbox"/> Infant with high activity</p> <p>Mother stressed?  <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Family members (lack of support):  <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

## Recommendations for Subsequent Feedings:

<b>Apparatus</b>	<input type="checkbox"/> Slow Flow <input type="checkbox"/> Regular Flow <input type="checkbox"/> Fast Flow <input type="checkbox"/> Breast <input type="checkbox"/> Breast with breast shield <input type="checkbox"/> Breast with Supplemental Nursing System <input type="checkbox"/> Special Specific nipple type (specify):
<b>Methods</b>	<input type="checkbox"/> Swaddling <input type="checkbox"/> Decreased auditory stimuli <input type="checkbox"/> Jaw support <input type="checkbox"/> Chin/cheek support <input type="checkbox"/> Rocking <input type="checkbox"/> Decreased visual stimuli <input type="checkbox"/> Auditory support <input type="checkbox"/> Other:
<b>Positioning</b>	<input type="checkbox"/> Side-lying <input type="checkbox"/> Upright <input type="checkbox"/> Enface (face-to-face) <input type="checkbox"/> Football hold <input type="checkbox"/> Cradled <input type="checkbox"/> Cross Cradled <input type="checkbox"/> Mother in sidelying
<b>Breastfeeding interventions</b>	<input type="checkbox"/> Increase milk supply <input type="checkbox"/> Breast shield <input type="checkbox"/> Express milk prior to feeding and have infant feed afterward
<b>Additional Comments</b>	