

BORN Information System (BIS) Enhancements:



Deployment April 6, 2015 → NICU Encounter

	Data Element Name (NICU tab)	Validation Rule	Data Element Change	Formatting Change	Pre-Population Rule	Pick-List Value Change	April 2015 Changes
1	NICU Admit Date (Admission & Demographics)	X					<p>Add validation rule: -Must be the same as or after [cannot be before] 'Newborn Date and Time of Birth' and before the 'NICU Discharge Date and Time of Birth'.</p> <p>Remove validation rule: -Must be after 'Newborn Date Of Birth' and before the 'NICU Discharge Date'.</p>
2	NICU Admit Time (Admission & Demographics)	X					<p>Add validation rule: -Must be the same as or after [cannot be before] 'Newborn Date of Birth' and 'Time Of Birth' and before the 'NICU Discharge Date' and 'Discharge Time'.</p> <p>Remove validation rule: -Must be after Newborn Date Of Birth and before the NICU Discharge Date.</p>
3	Type of Birth (Admission & Demographics)		X				<p>Add data element to the NICU encounter - Admissions & Demographics' tab - pre-populate from the BM or BC encounter as <u>read only</u> if value has been entered.</p>
4	Neonatal Resuscitation (first 30 minutes of life only) (Health Status)	X				X	<p>Rename pick list value:</p> <ul style="list-style-type: none"> 'Narcan' renamed → Narcan/naloxone. <p>Remove validation rule: -If APGAR 5 is <5 and birth outcome = 'Live birth' and Neonatal Death = 'No', then Newborn Resuscitation cannot = 'None'.</p>
5		X				X	<p>Rename pick lists:</p> <ul style="list-style-type: none"> 'CNS IVH grade 1' renamed → CNS IVH Blood in germinal

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	<p>Neonatal Health Conditions (Health Status)</p>						<p>matrix (grade 1)</p> <ul style="list-style-type: none"> • 'CNS IVH grade 2' renamed → CNS IVH Blood in ventricles (grade 2) • 'CNS IVH grade 3' renamed → CNS IVH Ventricular enlargement (grade 3) • 'CNS IVH grade 4' renamed → CNS IVH Intraparenchymal lesion (grade 4) • 'CNS PVL' renamed → CNS PVL periventricular leukomalacia • 'PDA ligation' renamed → PDA treated with ligation <p>Final CNS pick list:</p> <ul style="list-style-type: none"> • CNS IVH Blood in germinal matrix (grade 1) • CNS IVH Blood in ventricles (grade 2) • CNS IVH Ventricular enlargement (grade 3) • CNS IVH Intraparenchymal lesion (grade 4) • CNS PVL periventricular leukomalacia <p>Final Patent ductus Arteriosus (PDA) pick list:</p> <ul style="list-style-type: none"> • PDA Present not treated • PDA treated pharmacologically • PDA treated with ligation <p>Add validation rules:</p> <p>-If Neonatal Health Conditions='PDA present, not treated' then Neonatal Health Conditions cannot= 'PDA treated pharmacologically' or 'PDA treated with ligation'.</p> <p>-If Neonatal Health Conditions='PDA present, not treated' then Neonatal Surgery cannot = 'PDA ligation'.</p>
6	<p>Newborn Congenital Anomalies Suspected (Health Status)</p>	X					<p>Change from optional to conditional.</p> <p>Add validation rules:</p> <p>-If Newborn Congenital Anomalies Identified = 'Suspected or Confirmed' then Newborn Congenital Anomalies Suspected OR Newborn Congenital Anomalies Confirmed is required.</p> <p>-If one of the Newborn Congenital Anomalies Suspected OR Newborn Congenital Anomalies Confirmed data elements is selected, the value cannot = 'None'.</p> <p>-If both of the Newborn Congenital Anomalies Suspected AND</p>

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							<p>Newborn Congenital Anomalies Confirmed data elements are selected, only one can = 'None' (both cannot='None').</p> <p>Remove the following warning message: -'Either Anomalies Suspected or Anomalies Confirmed must be specified if Anomalies Identified is Suspected or Confirmed'</p>
7	<p>Newborn Congenital Anomalies Confirmed (Health Status)</p>	X					<p>Change from optional to conditional.</p> <p>Add validation rules: -If Newborn Congenital Anomalies Identified = 'Suspected or Confirmed' then Newborn Congenital Anomalies Suspected OR Newborn Congenital Anomalies Confirmed is required. -If one of the Newborn Congenital Anomalies Suspected OR Newborn Congenital Anomalies Confirmed data elements is selected, the value cannot = 'None'.</p> <p>-If both of the Newborn Congenital Anomalies Suspected AND Newborn Congenital Anomalies Confirmed data elements are selected, only one can = 'None' (both cannot='None').</p> <p>Remove the following warning message: -'Either Anomalies Suspected or Anomalies Confirmed must be specified if Anomalies Identified is Suspected or Confirmed'</p>
8	<p>Neonatal Therapies/ Interventions (Interventions)</p>	X				X	<p>New pick list values:</p> <ul style="list-style-type: none"> • Pharmacological Support in Hospital Morphine for NAS • Other Interventions in Hospital Intubation <p>Final pick list for 'Pharmacological Support in Hospital' values:</p> <ul style="list-style-type: none"> • Methylxanthines • Antibiotics for GBS • Antibiotics-Other • Surfactant • Corticosteroids • Inotropes • Paralytic Agents • Anticonvulsants • Morphine for NAS

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							<p>Final pick list 'Other Interventions in Hospital' values:</p> <ul style="list-style-type: none"> • Phototherapy • Exchange Transfusions • Therapeutic Hypothermia • Intubation <p>Add validation rule: -If Neonatal Therapies/Interventions = 'Other interventions in hospital Phototherapy' then Neonatal Health Conditions must = 'Other Health Conditions Hyperbilirbinemia'.</p>
9	Neonatal Pain Management (Interventions)					X	<p>New pick list value:</p> <ul style="list-style-type: none"> • Sucrose <p>Final pick list:</p> <ul style="list-style-type: none"> • None • Opioid analgesic use Morphine • Opioid analgesic use Fentanyl • Oral analgesics including acetaminophen • Sedative use Midazolam • Sedative use Chloral Hydrate • Sedative use Ketamine • Sedative use Benzodiazepines • Sedative use Other • Sucrose • Unknown
10	Invasive ventilation days (Interventions)	X					<p>Add data element back on as conditional using the pre-April 2014 'Mechanical Ventilation Days'.</p> <p>Add validation rules: -Required if Respiratory Support in Hospital = 'Invasive High Frequency Ventilation' or 'Intermittent Positive Pressure Ventilation'. -Cannot be greater than Length of Stay.</p>

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11	Feeding Methods in Hospital (Interventions)					X	<p>Remove pick list:</p> <ul style="list-style-type: none"> • Enteral <p>Convert previous Enteral values to Gavage Tube.</p> <p>Final pick list:</p> <ul style="list-style-type: none"> • None • Breast • Bottle • Supplementation Device on Breast • Supplementation Device not on Breast ie, finger feed, cup, other • NPO • Gavage tube • Supplementary feeding systems • Gastrostomy tube • Mucus Fistula Re-feed • Other • Not Applicable • Unknown
12	Reason for Breast Milk Substitute in Hospital (Interventions)	X				X	<p>Rename pick list values:</p> <ul style="list-style-type: none"> • 'Infant Medical Other' renamed → Infant Medical Other clinical indications • 'Maternal Medical Active herpes' renamed → Maternal Medical Active herpes on breast • 'Parental consent not obtained' renamed → Parental Consent not documented <p>Final pick list:</p> <ul style="list-style-type: none"> • Infant Medical Hypoglycemia • Infant Medical Inborn Errors of Metabolism • Infant Medical Pre-term (<32 weeks) • Infant Medical Very low birth weight (<1500 gms) • Infant Significant weight loss in the presence of clinical indications • Infant Medical Other clinical indications • Maternal Medical Active herpes on breast • Maternal Medical Additional Health Concerns • Maternal Medical Contraindicated maternal medication

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							<ul style="list-style-type: none"> • Maternal Medical HIV infection • Maternal Medical Severe maternal illness • Birth mother not involved in care • Informed Parent Decision to use Any Breast Milk Substitute • Parental Consent not documented • Unknown <p>Add validation rules: -'Parental consent not documented' cannot be selected with 'Informed parental decision to use any breast milk substitute'. -This field is mandatory if Neonatal Death = No and Nutritional Support in Hospital = Formula.</p> <p>Remove validation rule: -Mandatory if Neonatal Death = 'No' and Nutritional Support in Hospital contains one of the following values: 'TPN', 'Formula', 'Human Fortifier', 'NPO', or 'Other Additives'.</p>
13	Hyperbilirubinemia Treatment (Screening)	X					<p>Add validation rule: -If Hyperbilirubinemia Treatment = 'Phototherapy' then Neonatal Health Conditions must = 'Other Health Conditions Hyperbilirbinemia'.</p>
14	Highest Serum Bilirubin >340 mmol/L (Screening)		X				<p>Rename data element to: Highest Serum Bilirubin >340 mmol/L Pre-April 2015 name: Highest Serum Bilirubin >340</p>
15	Highest Serum Bilirubin >425 mmol/L (Screening)		X				<p>Rename data element to: Highest Serum Bilirubin >425 mmol/L Pre-April 2015 name: Highest Serum Bilirubin >425</p>
16	Date of Newborn Screen Collection (Screening)		X				Remove data element.
17	Time of Newborn Screen Collection (Screening)		X				Remove data element.

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18	Neuroimaging Screening Results (Screening)	X					Add validation rule: - 'No abnormalities found' is an exclusive value.
19	Feeding Methods (on day of discharge) (Discharge/ Outcome)					X	Remove pick list: <ul style="list-style-type: none"> • Enteral Convert previous Enteral values to Gavage Tube. Final pick list: <ul style="list-style-type: none"> • None • Breast • Bottle • Supplementation Device on Breast • Supplementation Device not on Breast ie, finger feed, cup, other • NPO • Gavage tube • Supplementary feeding systems • Gastrostomy tube • Mucus Fistula Re-feed • Other • Not Applicable • Unknown
20	Reason for Breast Milk Substitute (on day of discharge) (Discharge/ Outcome)	X				X	Rename pick list values: <ul style="list-style-type: none"> • 'Infant Medical Other' rename → Infant Medical Other clinical indications • 'Maternal Medical Active herpes' renamed → Maternal Medical Active herpes on breast • 'Parental consent not obtained' renamed → Parental Consent not documented Final pick list: <ul style="list-style-type: none"> • Infant Medical Hypoglycemia • Infant Medical Inborn Errors of Metabolism • Infant Medical Pre-term (<32 weeks) • Infant Medical Very low birth weight (<1500 gms) • Infant Significant weight loss in the presence of clinical

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							<p>indications</p> <ul style="list-style-type: none"> • Infant Medical Other clinical indications • Maternal Medical Active herpes on breast • Maternal Medical Additional Health Concerns • Maternal Medical Contraindicated maternal medication • Maternal Medical HIV infection • Maternal Medical Severe maternal illness • Birth mother not involved in care • Informed Parent Decision to use Any Breast Milk Substitute • Parental Consent not documented • Unknown <p>Add validation rules: -'Parental consent not documented' cannot be selected with 'Informed parental decision to use any breast milk substitute'. -Mandatory if Neonatal Death = 'No' and Feeding Type on Day of Discharge = 'Formula'.</p> <p>Remove validation rule: -Mandatory if Neonatal Death = 'No' and Feeding Type (on day of discharge) contains one of the following values: 'TPN', 'Formula', 'Human Fortifier', 'NPO', or 'Other Additives'.</p>
21	Discharge Weight (Discharge/ Outcome)	X					<p>Add validation rule: -Required if Neonatal Death = 'No' and Length of Stay (LOS) > 48 hours. [Visible in the User Interface and optional otherwise.]</p> <p>Remove validation rule: -Mandatory if Neonatal Death = 'No'.</p> <p>LOS = NICU Discharge/Transfer Date and NICU Discharge/Transfer Time minus NICU Admission Date and NICU Admission Time.</p>