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Beaumont

Document Contact: Maria Bueno: Medical Technologist Lead

Area: Laboratory-Processing

Applicability: Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Trenton, Troy and Wayne

Laboratory Specimen Processing and Resulting Newborn Screens
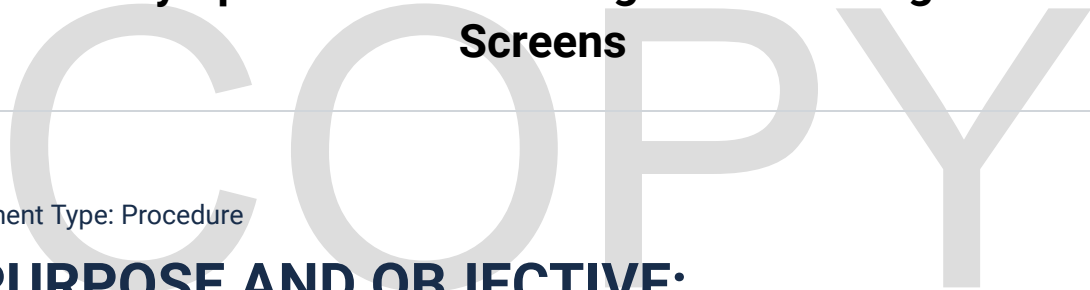
Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The purpose of this procedure is to provide instructions for each site hospital on processing and resulting Newborn Screens.

II. PRINCIPLE:

A. The Michigan Department of Community Health (MDCH) Newborn Screening Program screens for a large variety of disorders that are grouped by category.

B. This program is mandated by the state and each baby born must either have a Primary Newborn Screen obtained before discharge or the parents must sign a waiver indicating that they decline the test. The Newborn Screening Card is considered a legal document. Information must be carefully filled out by the nursery before phlebotomy draws the patient. Documentation of the time and date of collection, along with other demographics, are vital information for interpretation of results. The primary screen should be drawn 24 - 36 hours after birth. Such factors as transfusion, total parenteral nutrition (TPN) and method of collection can result in unsatisfactory specimens. Even if a specimen is classified as "unsatisfactory" the MDCH will still perform the testing.

C. Each hospital site is responsible for handling their own Newborn Screens. This entails entering Kit Numbers, scanning yellow copies internally, adding cards to a Packing List, sending to MDHHS via courier, and resulting via manual entry and scanning of report to external chart for viewing by

physician.

III. CLINICAL SIGNIFICANCE:

A. Early detection and treatment of some of the metabolic disorders screened for, if treated early, can avoid serious lifetime consequences. Therefore, proper collection, prompt forwarding and accurate completion of the card play an important role in the MDCH's program. This may involve a repeat screening test or prompt referral to medical management.

B. All Newborn Screen result reports are sent to the Beaumont Laboratory via secured fax. All abnormal and inconclusive results are telephoned or faxed by MDCH to the listed infant's physician with follow-up instructions. If there is not a listed physician on the report, then MDCH attempts to obtain a physician name from the hospital unit that delivered the baby.

IV. DEFINITIONS:

A. Document Scanner – A device that captures images from photographic prints and paper documents for computer editing and display.

B. Epic Beaker – Software module that can be used simultaneously at multiple sites as part of a Laboratory Information System (LIS) that interfaces with laboratory instruments and other information systems. Beaker computerizes and manages the data from Epic One Chart, results reporting, media scanning, and interfaced instruments.

C. Michigan Department of Health and Human Services (MDHHS) contacts:

1. NBS Main: 517-335-4181 (phone)

2. NBS Follow-ups and Report Requests: 517-335-9419 (fax)

3. Courier Issues: 517-335-1207 (manager phone)

4. Order Issues/Tracking: 517-335-1400 (phone)

V. PROCEDURE:

A. **Review and Receipt of Newborn Screen Cards:**

1. Orders for Newborn screening can be received either electronically in Laboratory Computer System via Hospital Information System (HIS) or physician Electronic Health Record (EHR) systems, or on manual requisitions.

2. Newborn Screen Cards come with 5 Sheets
   a. Card board back and specimen cover
   b. Filter Paper collection card.
   c. Hearing Card
   d. Yellow carbon of patient demographics/collection information.
   e. Original of patient demographics/collection information

3. Each Newborn Screen Card has a unique identifying number in the bottom right hand corner of the card. This is referred to as the Kit Number. This number is used as a specimen identifier. Because the names often change on infants, the kit number is used to identify the patient along with medical record number, mother, patient name and date of birth.

4. Nursing performs testing related to the hearing card portion of the screen. Those

portions should be removed and sent to MDHHS by nursing.

5. If the hearing card is not removed, remove it and send back to the nursing units to complete it.

6. Look card over and verify that all areas are complete. In particular:

    a. Baby's name (First and Last)

    b. Birth date and time

    c. Collection date/time

        i. Should be within 24 – 30 hours after birth for initial screen

        ii. If drawn before the recommended time frame a call to unit should be made to confirm testing is still desired to be sent.

    d. Physician name and phone/fax number

    e. Mother's demographic information

    f. Maternal Hepatitis B Surface Antigen status

    g. Hospital name (at bottom of the card) and hospital number.

7. Newborn screen orders should be received in the Laboratory Computer system using the approved Specimen Processing Laboratory - Manually Receiving Specimens in Beaker procedure.

8. Place a Laboratory label on the front of the yellow carbon copy and the white copy of the card.

9. Repeat steps above for each card.

10. Once all the cards have been appropriately received, they should be transported to the drying rack in Processing ensuring that specimens are not stacked, exposed to heat, direct sunlight or high humidity.

B. **Entering Kit Numbers and Scanning Yellow Submitter Copies** (To be performed after specimens are received in with the "Receiving" activity.)

    1. Open Beaker

    2. Select **Outstanding List** for your location, click **Scanned**, select **All** and **Specimen** to begin the scanning label function.
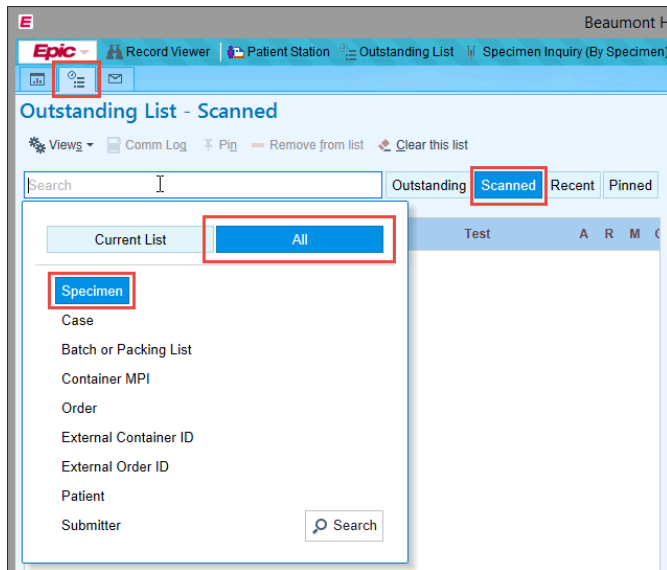
3. Scan patient label. Window appears to right of outstanding list. Click the **Pencil Icon** to initiate Edit Mode.

4. Scan NBS card into the **Kit Number** field.
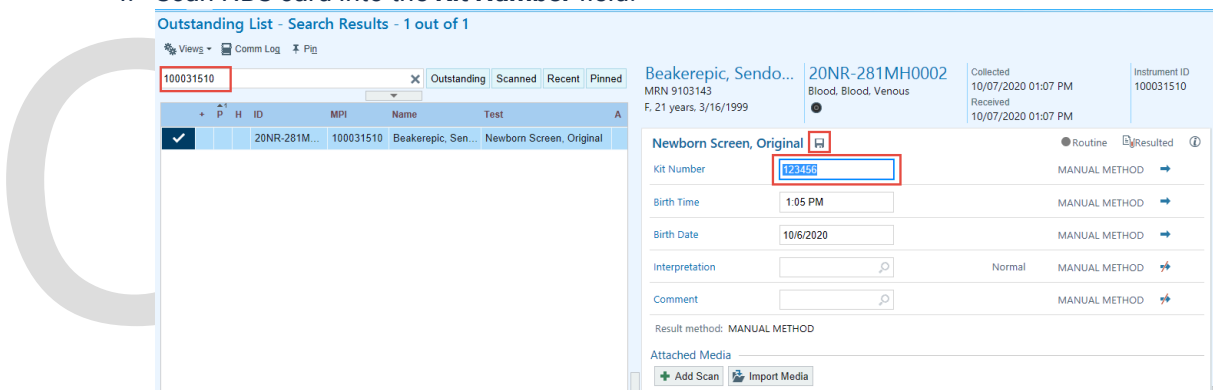
5. Remove yellow copy and affix a patient label. Save other label for later to place on report from MDHHS.

6. Place yellow copy face down with foot in upper right on document scanner. Click Add Scan.

7. Type "NBS" in the **Description** field then click **Content Capture** to complete scan.
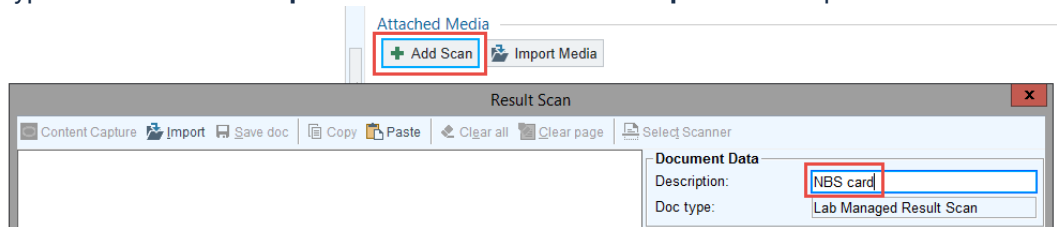
8. When complete, click **Internal** so the yellow copy does not post to the chart.

9. Click the arrow down next to the Verify button in bottom right. **Do NOT hit the Save icon.**
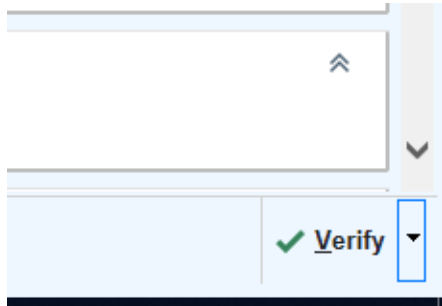
10. Pick Prelim Verify

11. Press the Acknowledge Warnings button in the bottom right.
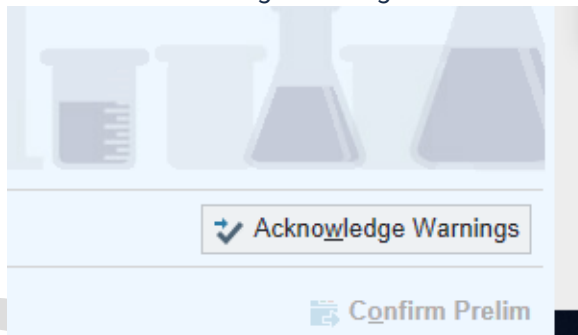
12. Click Confirm Prelim button

13. Return cursor to outstanding list scan field and scan next patient label.


C. **Adding NBS Cards to Packing List**

    1. Go to **Sendout Bench – Specimens to send out**

    2. Select appropriate MDHHS Newborn Screen **Packing List** and click **Create**

3. Select appropriate **List Type**

4. Beaker automatically assigns a **Packing List ID**

5. Click **Accept**
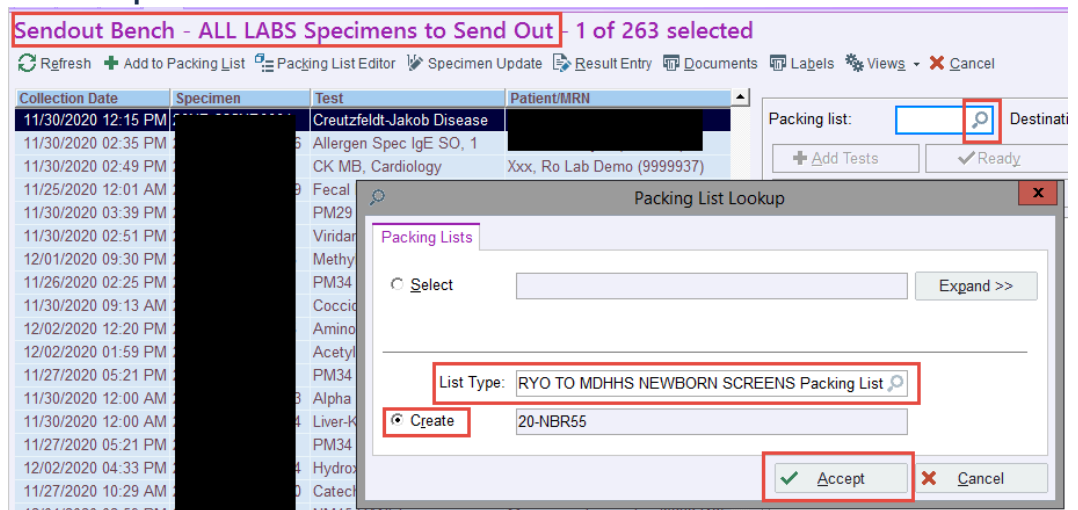
6. New **Packing List ID** and **Destination** populates

7. Click **Open Packing List Editor** and you will see your packing list ID as a new tab on the right.

8. Begin scanning **Container IDs**. If you scan a test that does not qualify, you will receive an error and it will not be added to the list.

9. Tests populate in the **Container** section on the right as they are scanned

10. To remove a test from the list, backspace out the **Container ID Number** in the packing list

11. To verify all qualifying tests have been added to the packing list, return to the Sendout Bench by clicking the **Envelope Tab** on the top left. You are able to filter the columns by Reference Lab and Collection Date. Return to your list by clicking the packing list ID tab.

12. When list is complete, click **Ready**. At this point, you have the option to click **Unready** if more tests need to be added.
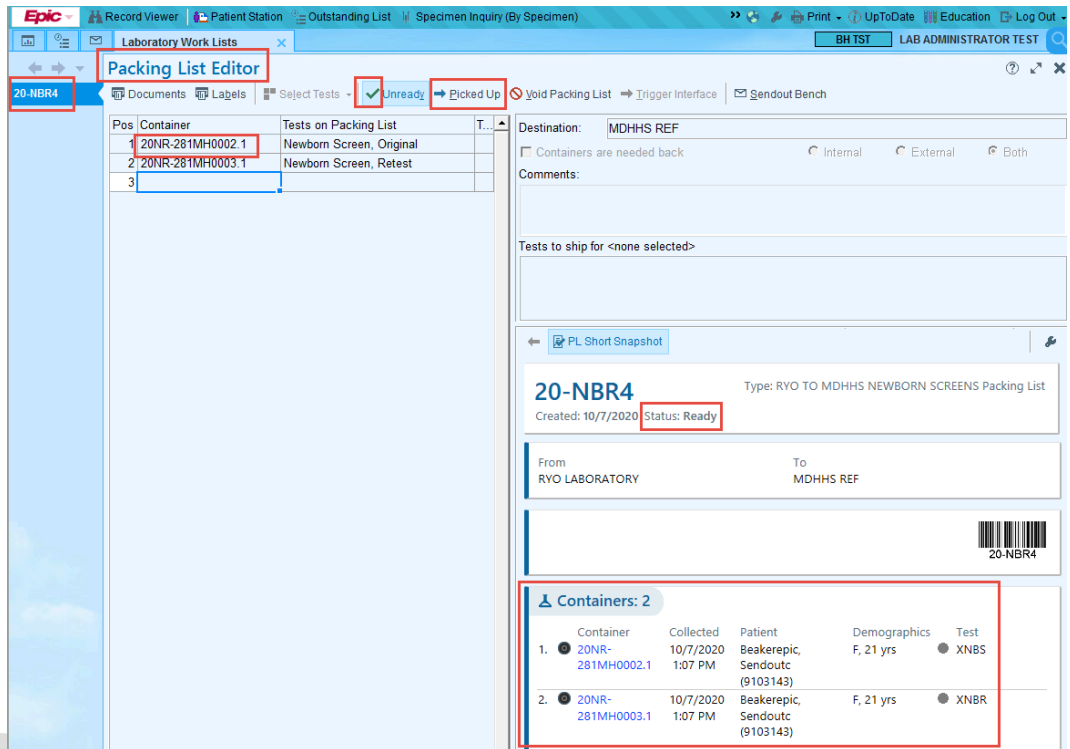
13. When packing list is ready to go, click **Picked Up**. This signifies that a courier will physically come pick up the samples. The packing list cannot be modified after this step and will officially show as sent.

14. To double check a specimen was actually sent, click the Sendout Bench envelope tab, click the **Action Button** in the upper right. Select **Views,** select **Sent Out Specimens**, and note the packing list ID that was sent out.
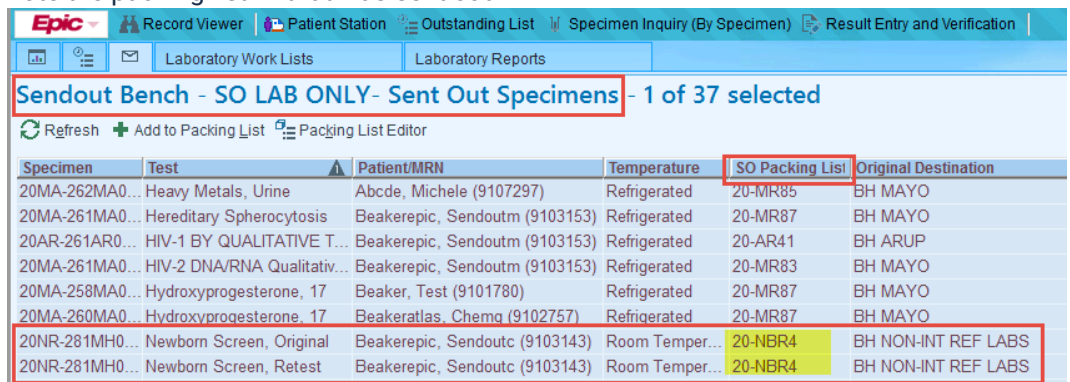
15. Another way to verify a sample was sent is to select **Specimen Inquiry (By Specimen),** copy/paste container ID, and click **Accept** to view **Tracking Information.**
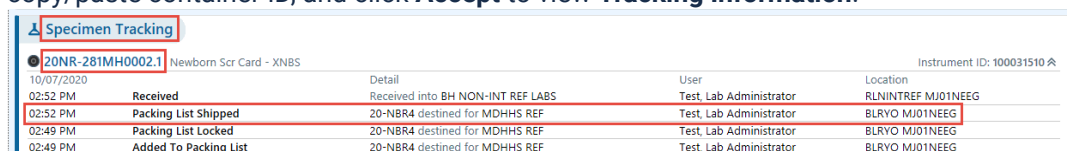
D. **Scanning the Reports and Resulting**
Prior to scanning the MDHHS results**, all reports need the Beaker order label attached in such a way that is does not cover any of the results or interpretive information.**

1. Select **Outstanding List** for your location, click **Scanned**, select **All** and **Specimen** to begin the scanning label function.

2. Affix previously saved, correct patient label to report. Scan patient label. Window appears to right of outstanding list. Click the **Pencil Icon** to initiate Edit Mode.

3. Enter the **Interpretation** result and **Comment** indicating paper report.

4. Click **Add Scan**

5. Type "Report" in the **Description** field, place report on scanner, then click **Content Capture** to complete scan.

6. When complete, **Reported** will default so the report posts to the chart.

7. Important: **Verify** result (button in lower right), and click **Confirm Final.**

8. Return cursor to outstanding list scan field and scan next patient label.

VI. REFERENCES:

A. Michigan Newborn Screening Guide for Hospitals (May 2019)

Approval Signatures

Step Description	Approver	Date
CLIA Medical Directors	Vaishali Pansare: Chief, Pathology	4/15/2022
CLIA Medical Directors	Jeremy Powers: Chief, Pathology	4/14/2022
CLIA Medical Directors	Ann Marie Blenc: System Med Dir, Hematopath	4/13/2022
CLIA Medical Directors	Muhammad Arshad: Physician	4/13/2022
CLIA Medical Directors	John Pui: Chief, Pathology	4/13/2022
Policy and Forms Steering Committee Approval (if needed)	Kimberly Cole: Lab Quality Coord	4/13/2022
Policy and Forms Steering Committee Approval (if needed)	Ilene Hirsch: Project Mgr Policy	4/13/2022
Lab Operations Directors	Amy Conners: Dir, Lab Operations A	4/13/2022
Lab Operations Directors	Kimberly Geck: Dir, Lab Operations B	4/13/2022
Lab Operations Directors	Joan Wehby: Dir, Lab Operations C	4/8/2022
Lab Operations Directors	Elzbieta Wystepek: Dir, Lab Operations B	4/7/2022
Lab Processing Best Practice Committee	Michelle Fischer: Mgr, Lab Support Svcs	4/4/2022
Lab Processing Best Practice Committee	Kimberly Cole: Lab Quality Coord	4/4/2022
	Kimberly Cole: Lab Quality Coord	4/4/2022

Applicability

Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Trenton, Troy, Wayne