

Newborn Screening Bulletin 2024-4

September 9, 2024

Total parenteral nutrition (TPN)/amino acid solution hold

Holding TPN administration prior to obtaining the dried blood spot sample is the standard of care. TPN administration affects screening for some amino acid disorders, leading to false positive newborn screening results. Therefore, Newborn Screening Ontario (NSO) recommends all neonatal units hold TPN/amino acid solutions for 3 hours prior to newborn screening sample collection when possible.

We have various resources on our [Submitter Hub](#) to support you and your teams in ensuring quality newborn screening sample collection, including:

- [Special considerations for dried blood spot collection](#),
- Recommended [protocol for infants receiving TPN](#),
- [Video on TPN holds and specimen collection](#)

Card completion:

Please ensure the TPN hold is documented accurately on the newborn screening card by indicating the number of hours TPN was held on the line provided. If the TPN was **not** held, indicate this by writing “0” hours.

Feeding:	<input type="radio"/> Breast	<input type="radio"/> Formula
	<input checked="" type="radio"/> TPN	<input type="radio"/> NPO
TPN hold #	<u> 3 </u> hrs.	

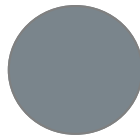
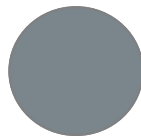
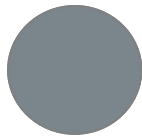
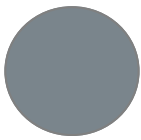
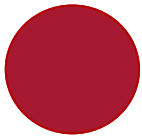
Safe practices for shipping newborn screening dried blood spot cards

We have received some questions regarding safe practices for packaging and shipping newborn screening dried blood spot samples. After the sample is dry (at least 3 hours), the fold-over flap should be folded closed, which protects the dried blood spots. The samples can then be stacked and placed in the Purolator bag for shipment.

- Please do not seal the flap closed, e.g. with a patient/lab sticker or paper clip, as this can damage the sample.
- Ship samples every day, as soon as possible after the blood spots have dried. Waiting several days to ship samples (known as batching) can have serious consequences for infants affected by one of the diseases screened for.
- Dried blood spot samples are not considered to be biohazardous material and are not subject to Transport of Dangerous Goods Regulations. Therefore, they should not be placed in a biohazard bag before placing in the Purolator bag. More [information on shipping samples](#) is on our website.

*For sites that also send dried saliva spots to NSO, please continue to separate the blood samples from saliva samples prior to shipment.





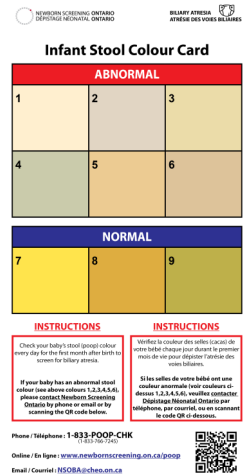
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Biliary atresia: Ordering Infant Stool Colour Cards (ISCCs) and new teaching tool

Biliary atresia screening is the standard of care in Ontario. With the use of an ISCC, screening can assist in the early identification and treatment of biliary atresia, resulting in better outcomes for affected babies. All newborns should be screened for biliary atresia regardless of whether they are in the hospital or at home.

- Check out our new teaching tool: [How to Screen for Biliary Atresia](#), a short cartoon you can share with families.
- Remember to keep a robust supply of ISCCs at your organization. Please always provide an original copy of the ISCC to families, as this is critical for colour accuracy. Visit our website for [instructions on how to order ISCCs](#) free of charge. You can order a **max. of 30 packs** of 25 cards per order, to ensure the cards are as up-to-date as possible.



Dried blood spots (DBS) and hearing loss risk factor screening

Did you know that newborn screening samples can be screened for cytomegalovirus (CMV) and genetic risk factors for permanent hearing loss (PHL) as part of the Infant Hearing Program (IHP)? Consent is obtained through the IHP, and CMV and genetic screening are considered standard of care for infants who participate in hearing screening.

Key Takeaways:

- To ensure the reliability of this screening, minimize unsatisfactory samples, and prevent cross-contamination of samples we would like to remind you of the following practices for the handling of newborn DBS samples. 1) Please wash your hands and don gloves prior to specimen collection. 2) Avoid touching or smearing the specimens after their collection. 3) Allow the specimen to air dry at an ambient temperature of 15°C to 22°C, on a horizontal, non-absorbent, open surface for **at least three hours**. 4) Do not stack DBS or allow them to touch other surfaces during the drying process. 5) Ensure flaps are closed prior to shipping.
- Risk factor screening results are reported to the IHP and are not included as part of the newborn screening results report you receive, although results can be requested through the [NSO website](#).
- If you have any questions about hearing loss risk factor screening, or the Infant Hearing Program, please visit the [NSO website](#) or contact us at NSOhearing@cheo.on.ca.

Thank you for your dedication to the well-being of newborns and their families. Please do not hesitate to reach out with any questions.

Newborn Screening Ontario