



HDFN HEALTH RECORD



PERSONAL INFORMATION

Mother's Name :

Mother Date Of Birth : ____ / ____ / ____

Address : _____

Phone Number : _____ E-Mail : _____

ID Number : _____ Social Security Number : _____

Father's Name :

Baby's Name :

Estimated Due Date : ____ / ____ / ____

Date of Birth : ____ / ____ / ____

Gestational Age at Delivery : _____



OB

collaborating with/
transitioning care to

MFM

PHYSICIAN INFORMATION

OB Name : _____ Number : _____ Email : _____

MFM Name : _____ Number : _____ Email : _____

Neonatologist
Name : _____ Number : _____ Email : _____

Pediatrician
Name : _____ Number : _____ Email : _____

Pediatric
Hematologist
Name : _____ Number : _____ Email : _____



HDFN HEALTH RECORD



MATERNAL ANTIBODY

Antibody ID	Last Known Titer	Highest Titer	Fetal Antigen Status		
			<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Unknown
			<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Unknown
			<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Unknown
			<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Unknown
			<input type="checkbox"/> Positive	<input type="checkbox"/> Negative	<input type="checkbox"/> Unknown

Is baby at risk for HDFN? : ☐ Yes ☐ No ☐ Unknown (monitor as if positive)



FETAL AND NEONATAL IMPLICATIONS



- Only antigen positive fetuses/neonates can be affected by the matching maternal antibody.
- Antigen negative fetuses/neonates are not at risk for HDFN, regardless of titer.
- For those with positive or unknown antigen status, HDFN can be more severe with critical titers (16 or above for all antibodies, 4 or above for Kell) or multiple maternal antibodies, and should be closely monitored accordingly.
- Babies born to mothers with titers below critical are still at risk and should receive close monitoring.
- Regardless of fetal antigen status, donor blood for the fetus or neonate must be cross matched for all maternal antibodies.

FETAL MONITORING

FOR PATIENTS WITH CRITICAL TITER OR PREVIOUSLY AFFECTED PREGNANCY

Gestation	Date	PSV	M.o.M.



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PRENATAL COMPLICATIONS

Ascites : ☐ Yes ☐ No

If yes, gestational age at first occurrence : _____

Resolved? ☐ Yes ☐ No

Fetal Hydrops : ☐ Yes ☐ No

If yes, gestational age at first occurrence : _____

Resolved? ☐ Yes ☐ No

Prenatal Complications Apart from HDFN : ☐ Yes ☐ No

If yes, describe :

PRENATAL INTERVENTIONS

CVS : ☐ Yes ☐ No

If yes, date(s) of procedure : _____

Amniocentesis : ☐ Yes ☐ No

If yes, date(s) of procedure : _____

Corticosteroids : ☐ Yes ☐ No

If yes, date(s) of administration : _____

Maternal phenobarbital for fetal hepatic maturation? : ☐ Yes ☐ No

If yes, date(s) of procedure : _____

Intrauterine Blood Transfusion (IUT) : ☐ Yes ☐ No

If yes, fill out chart below :



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INTRAUTERINE BLOOD TRANSFUSIONS

	Date	Gestation	Starting Hct	Ending Hct	Medications Administered to Fetus
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					



NEONATAL & PEDIATRIC IMPLICATIONS

- Infants who have received intrauterine transfusions may have 100% donor blood at birth since most/all fetal red blood cells have been destroyed by maternal antibodies and have been replaced with antigen negative donor blood. DAT at birth may therefore be negative despite severe HDFN.
- Intrauterine transfusions can also affect neonatal blood typing and newborn screen, possibly causing inaccurate results, ie. O- blood type that changes once donor blood dies off, or false positive newborn screen for Carnitine Deficiency Disorder, etc.
- These tests can be readministered several weeks after the infant's last blood transfusion to ensure accurate results.





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No

Date : _____

Date : _____



NEONATOLOGIST



HDFN HEALTH RECORD



BIRTH/NEONATAL

Date of Birth : _____ Gestational Age at Birth : _____

Birth Weight : _____ Time of Birth : _____

Delayed Cord Clamping? ☐ Yes ☐ No



NEONATAL IMPLICATIONS

Delayed cord clamping (30-60 seconds) may reduce the need for neonatal exchange or top-up transfusion in the HDFN neonate with history of intrauterine transfusion.

Cord Blood Tested at Birth? ☐ Yes ☐ No

If no, when were first labs drawn? _____

DAT (DCT) : _____ Bilirubin : _____

HCT : _____ HGB : _____

BILIRUBIN/ HYPERBILIRUBINEMIA



NEONATAL & PEDIATRIC IMPLICATIONS

- Baseline bilirubin should be checked at birth since hemolytic jaundice can present at birth or very soon afterwards
- Hemolytic jaundice presents differently than typical newborn jaundice and requires close monitoring and specialized treatment
- Bilirubin levels can rise rapidly in newborns with HDFN.

Age	Date	Time	Bilirubin	Phototherapy	IVIG	Exchange Transfusion



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Age	Date	Time	Bilirubin	Phototherapy	IVIG	Exchange Transfusion

RBC/ HEMOLYTIC ANEMIA



NEONATAL, PEDIATRIC & HEMATOLOGY IMPLICATIONS



- Hemolytic anemia presents differently than iron deficiency anemia and requires specialized monitoring and treatment
- Newborns with HDFN (even those who didn't need IUTs) are at risk for high ferritin and iron overload, even when they are anemic. Iron supplementation is not a treatment for hemolytic anemia but could be utilized if blood tests confirm low ferritin levels in the infant.
- Neonates with HDFN are at risk for delayed onset hemolytic anemia and should have a follow up consult scheduled with a pediatric hematologist **before hospital discharge**.

Age	Date	Time	Hemoglobin	Hematocrit	Retic	Transfusion



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Age	Date	Time	Hemoglobin	Hematocrit	Retic	Transfusion

HOSPITAL DISCHARGE

Date of Discharge : _____

Discharging Physician : _____

Infant Age at Discharge : _____

Last hgb/hct Before Discharge : _____

Last Bilirubin Before Discharge : _____

Last Retic Before Discharge : _____

PEDIATRIC & HEMATOLOGY IMPLICATIONS



- Neonates with HDFN are at risk for delayed onset hemolytic anemia. Assure referral to pediatric hematology or, in less severe cases, a pediatrician knowledgeable in HDFN monitoring prior to discharge with proper transfer of fetal and neonatal health history.



- One or more top-up transfusions may be necessary up to 3-4 months of age even if hemoglobin/hematocrit levels are initially normal in the first few weeks of life

Follow up consult with pediatric hematologist scheduled?

☐ Yes☐ No

Appointment Date : _____

Hematologist Name : _____

Hematologist Number : _____



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NEONATAL PROVIDER NOTES TO PEDIATRIC/HEMATOLOGY TEAM

Agree to be contacted by hematology/ pediatric providers?

☐

Yes

☐




No

Neonatal Provider :
Signature

Date : _____

Parent Signature : _____

Date : _____



_____ transitioning care to _____ collaborating with _____

Neonatologist/
Hospital Pediatrician Pediatrician Hematologist



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POST DISCHARGE CARE

Date	Bilirubin	Hemoglobin	Hematocrit	Retic	Symptoms	Transfusion

Two subsequent rises in hgb/hct without transfusion?

☐

Yes

☐

No

HDFN RESOLVED

Hematologist/
Pediatrician
Signature : _____

Date : _____

Parent Signature : _____

Date : _____

_____	releasing patient from care/ declaring HDFN resolved on	_____
Hematologist/ Pediatrician		Date