New Mexico Perinatal Hepatitis B Program and Hospital Collaboration

Hepatitis B Trivia

- 1982 ~ Hepatitis B Vaccine first issued.
- 1988 ~ Recommended screening of pregnant women.
- 1991 ~ Recommended vaccine for infants
  1996 ~ Recommended for Healthcare Workers.
- 2000 ~ for all children going into 7th grade.
- 2002 ~ for all children going into kindergarten

Hepatitis B Trivia

- 2005 ~ CDC recommended the 1st hepatitis B vaccine dose should be given at birth. New MMWR Guidelines released December 23, 2005.
- Hepatitis B Vaccine has been successfully integrated into childhood vaccine schedules. With a 94% decline in childhood and infant Hepatitis B infections.
- Primary focus to vaccinate infants to prevent early childhood infection and to eventually protect them as adolescents and adults.

CDC's Hepatitis B Recommendations

Prevention of Perinatal Hepatitis B Transmission

2005 ACIP Statement: Prevention of Perinatal HBV Transmission

Three things we need to do:

1. Test all pregnant women for HBsAg during an early prenatal visit ; test women upon admission to labor and delivery, as indicated

WHO: Prenatal and obstetrical care providers, hospitals

2005 ACIP Statement: Prevention of Perinatal HBV Transmission

Three things we need to do:

2. Ensure all infants of HBsAg-positive and of HBsAg-unknown status mothers receive appropriate, timely post-exposure prophylaxis (PEP) and complete follow-up (i.e., case management)

WHO: Neonatal and pediatric healthcare providers, health departments

2005 ACIP Statement: Prevention of Perinatal HBV Transmission

Three things we need to do:

3. Vaccinate all newborns before hospital discharge

WHO: Neonatal and pediatric care providers, hospitals

Prevention of Perinatal HBV Transmission in the U.S.

Requires coordinated efforts by:

- Providers of prenatal, obstetrical, neonatal, and pediatric care
- Hospitals
- Health departments

Testing Pregnant Women

Prenatal care providers:

- Test all pregnant women for HBsAg during an early prenatal visit.

- Transfer copy of original laboratory HBsAg report to delivery hospital for all pregnant women.

Management of HBsAg-positive Pregnant Women

Prenatal care providers :

- Report cases to health department for case management.
- Provide or refer patient for counseling, medical evaluation, and possible treatment of chronic hepatitis B.
- Inform women of the need for Hepatitis B vaccine and HBIG for their newborns.

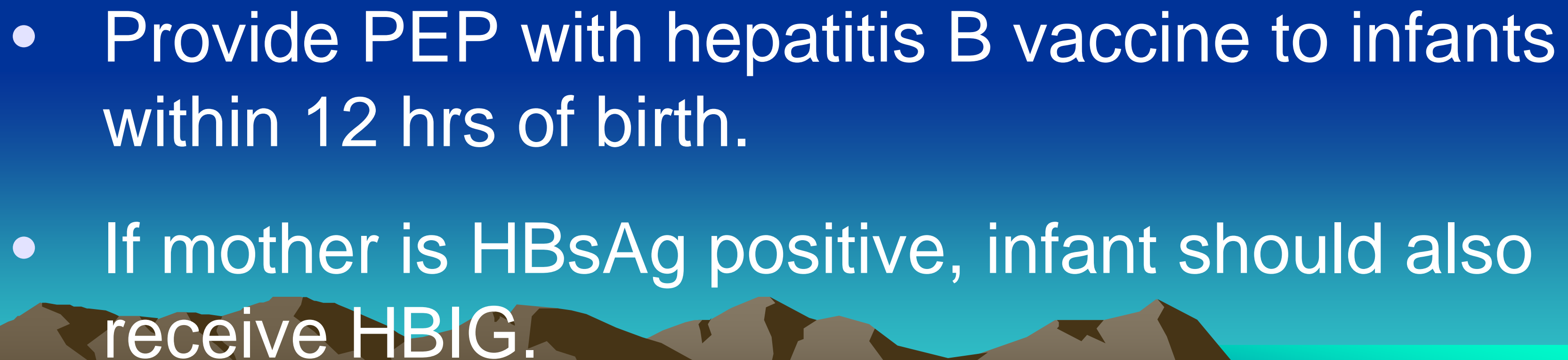
Management of Infants Born to Women with Unknown HBsAg Status

Hospitals and obstetrical care providers:

- Perform HBsAg testing of the mother soon after admission for delivery.
- If mother is HBsAg positive, report to health dept.

Hospitals and neonatal care providers:

- Provide PEP with hepatitis B vaccine to infants within 12 hrs of birth.
- If mother is HBsAg positive, infant should also receive HBIG.



Universal Infant Vaccination Beginning at Birth (≥2000 g)

- All medically stable infants weighing ≥2000 g at birth and born to HBsAg-negative women should be vaccinated before hospital discharge (birth dose).

- Delaying vaccination until after hospital discharge should be *rare,* and have both;
  - a physician's order to withhold the birth dose
  - a copy of the laboratory report indicating that the mothers HBsAg status should be in the infants medical record.

Universal Infant Vaccination Beginning at Birth ($\leq$2000 g)

- If infant weighs $\leq$2000 g at birth and mother is HBsAg negative, delay first hepatitis B vaccine dose to 1 month after birth or hospital discharge.
  - A copy of the laboratory report indicating the mother's HBsAg-negative status during this pregnancy should be included in the infant's medical record

Universal Infant Vaccination Beginning at Birth (≤2000 g)

- In pre-term infants weighing ≤2000 g, and mother is HBsAg-unknown or HBsAg-positive these infants should receive both single antigen Hepatitis B vaccine and HBIG (0.5 ml) within 12 hours of birth if the mother's HBsAg status cannot be determined.
- The birth dose of vaccine should not be counted as part of the three doses required to complete the vaccine series.

Implementing the ACIP Recommendations in Hospitals

All delivery hospitals should implement policies and procedures, including standing orders, to ensure prevention of perinatal HBV transmission

Implementing the ACIP Recommendations for Hospitals

The following standing orders should be implemented:

- Review of HBsAg status of all pregnant women on admission
- HBsAg testing of pregnant women on admission, as indicated
- Administration of appropriate PEP within 12 hrs of delivery to:
  - All infants of HBsAg-positive mothers
  - All infants of HBsAg-unknown status mothers

Implementing the ACIP Recommendations for Hospitals

The following standing orders should be implemented:

- Administration of the birth dose of Hepatitis B vaccine to all infants before hospital discharge.
- Copy of the HBsAg lab result in both the maternal and infants medical record.

Hospital Surveys

2006 ~ We participated in the National Hospital Survey conducted by the CDC. They chose two hospitals in New Mexico.

Continued to survey the rest of the birthing hospitals in the state.

With each survey we conducted staff education on the newly released guide lines.

We followed each survey with a written evaluation of our findings and recommendations

1st Round of Hospital Surveys

Hospital	Survey #1	# MR	% BD	Survey #2	#Births	#MR	%BD	% Change	#Births	Survey	# MR
	Jul-07	25	100%	Oct-09	216	56			242	Oct-10	69
	Jul-07	25	92%	Nov-09	529	79			494	Oct-10	81
	Oct-07	25	100%	Nov-09	1420	92			1389		90
	Jul-08	25	0%	Nov-09	363	75			353		76
	Feb-07	25	100%	Jan-10	307	73			339		75
	Sep-08	25	0%	Nov-09	300	73			300		73
Los Alamos	Nov-07	25	3%	Jan-10	299	65			224		67
	Sep-09	25		Sep-09	162	25			162	Sep-10	61
	Apr-08	25	0%	Oct-08	1600	90			1600	Sep-10	91
	Jul-08	25	56%	Jan-10	5081	94			5340		94
	Oct-07	25	72%	Sep-09	3596	93			3923		94
	Mar-07	25	72%		3425	94			3589		94
	Sep-07	25	96%	Mar-08	12	Not delivering					
	Feb-07	25	96%	Nov-08	600	76			549	Feb-10	82
	Jun-08	26	23%	Jul-08	1050	87			722	Dec-09	98
	May-07	25	100%	Dec-08	1026	89			1171	May-10	89
	Oct-07	23	96%	Aug-08	1034	89			1247	Jun-10	89
	Sep-07	24	96%	Dec-08	722	78			490	May-10	80
	Sep-07	25	56%	Jan-10	693	86			617		83
	Apr-08	25	16%	Nov-08	456	70			512	Apr-10	81
	May-07	25	96%	Oct-08	301	73			312	Sep-10	74
	Jan-07	25	100%	Jun-09	2078	92			2078		92
	Mar-07	25	100%	Sep-08	300	76			322		74
	Dec-07	25	100%	Nov-09	300	73			782		85
	Jul-07	25	88%	Nov-08	180	43			200	Jun-10	66
		623	69%		26060	1840			26,927		

Hospital Surveys

- Call to schedule a convenient date and time.
- Follow up letter is sent to confirm the date, number of medical records, coordination with electronic and paper records.
- Include a copy of the medical record abstraction form.
- Hospital Policy and Practices Survey is included.

Hospital Surveys

- Request a copy of current Policies and Standing Orders pertaining to Hepatitis B vaccine and HBIG administration.
- Schedule a follow-up meeting to review our survey findings and present our recommendations.
- Provide additional tools to support our recommendations.

Medical Record Abstraction Form

Hospital: Los Alamos Date: 1/5/2010 Abstractor: Diane Jay & Kris Tenorio #MR : 65

Maternal medical record

Mother's birth date: ___/___ 19____

Admission date: ___/___/___ and time ___:___ am/pm (circle)

Mother's ethnicity: ☐ Hispanic/Latino ☐ Not Hispanic/Latino ☐ Unknown

Mother's race - check all that apply ☐ White ☐ Black ☐ Asian ☐ AI/AN ☐ Hawaiian/Other PI ☐ Other/unk

Mother's Insurance status: ☐ Private ☐ Medicaid ☐ Other or Unknown

Prenatal testing prior to admission:

Mother received prenatal care: ☐ Yes ☐ No.

	Tested? (check one)	Latest Result: (circle one)	Date:	Noted on admission: (check one)
HBSAg:	☐Yes ☐ No ☐Not doc	(P, N, U)	___/___/___ ☐ not documented	☐ Prenatal flow sheet/summary ☐ Prenatal lab report ☐ Progress Note ☐ Other:__________________
HIV:	☐Yes ☐ No ☐Not doc	(P, N, U)	___/___/___ ☐ not documented	

Testing on Admission:

Type of attending provider:

	Tested? (check one)	Result: (circle one)	Date specimen obtained:	Date result available:
HBSAg:	☐Yes ☐ No ☐Not doc	(P, N, U)	___/___/___	___/___/___
HIV:	☐Yes ☐ No ☐Not doc	(P, N, U)		

Neonatal medical record

DELIVERY DATE: ___/___/___ and time ___:___ am/pm (circle)

Infant weighed less than 2,000 grams at birth? ☐ Yes ☐ No ☐ Not documented

Recorded maternal HIV test result? ☐ Yes ☐ No

Recorded maternal HBsAg test result? ☐ Yes ☐ No ☐ Not documented

If YES, What was the maternal HBsAg test result: ☐ Positive ☐ Negative

HepB given? ☐ Yes; date ___/___/___ Time ___:___ am/pm (circle) ☐ No - SKIP to HBIG question

HepB given as a result of hospital standing orders? ☐ Yes ☐ No

If NO, was HepB given as a result of a specific MD order? ☐ Yes ☐ No ☐ Not documented

HBIG given? ☐ Yes; date ___/___/___ Time ___:___ am/pm (circle) ☐ No - SKIP to @

HBIG given as a result of hospital standing orders? ☐ Yes ☐ No

If NO, was HBIG administered as a result of a specific MD order? ☐ Yes ☐ No ☐ Not documented

@ Any specific order NOT to vaccinate against hepatitis B virus? ☐ Yes ☐ No - STOP

If YES, documented reason for not vaccinating? (check all that apply).

☐ Infant was <2,000 grams at birth
☐ Infant was not medically stable
☐ Mother was HBsAg negative

☐ Other reason; please specify below:
____
____

Hospital Policy and Practices Survey

Perinatal Hepatitis B Hospital Policy and Practices Survey Date:______________

The purpose of this questionnaire is to obtain data from delivery hospitals to assess current policies and practices regarding perinatal infections, particularly hepatitis B infection.

1. Please indicate your name ______________________________ Telephone # _________________ e-mail________________________ Fax # ______________
2. Please indicate your professional category
   - ☐ Nurse
   - ☐ Pediatrician
   - ☐ Clinical Nurse Manager
   - ☐ Administrative personnel
   - ☐ Other – Please specify ________________________________
3. Please indicate your title ____

Admission to Labor and Delivery – Perinatal Hepatitis B Policy

4. Do you currently have **written directives** to review prenatal HBsAg (hepatitis B surface antigen) test results at the time of admission to the Labor and Delivery (L & D) unit for all pregnant women?

   ☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know
5. For women admitted to L & D who do not have a documented HBsAg test result, do you currently have **written instructions** for HBsAg testing as soon as possible after admission?

   ☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know
6. Do you currently have **written directives** for repeat testing of pregnant, HBsAg-negative women who are at risk for HBV infection during pregnancy? (e.g. >1 sex partner in the previous six months, evaluation or treatment for an STD, recent or current injection drug use, HBsAg-positive sex partner or who have had clinical hepatitis).

   ☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

Admission to Labor and Delivery – HIV Policy

7. Do you currently have **written directives** to review prenatal HIV test results at the time of admission to the Labor and Delivery (L & D) unit for all pregnant women?

   ☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know
8. For women admitted to L & D who do not have a documented HIV test result, do you currently have **written directives** for HIV testing as soon as possible after admission?

   ☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

Prophylaxis Management of Infants born to women who are HBsAg-positive

9. Do you currently have **written directives** for administration of HBIG (hepatitis B immune globulin) within 12 hours of birth for all infants born to HBsAg-positive mothers?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

10. Do you currently have **written directives** for administration of hepatitis B vaccine within 12 hours of birth for all infants born to HBsAg-positive mothers?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

Prophylaxis Management of Infants born to women with unknown HBsAg status

11. Do you currently have **written directives** for administration of hepatitis B vaccine within 12 hours of birth for all infants born to mothers with unknown HBsAg status?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

Universal Vaccination of Infants

12. Do you currently have **written directives** to routinely administer the hepatitis B vaccine to all newborns before hospital discharge?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

13. Do you currently have **written directives** on the administration of Hepatitis B vaccine for infants weighing <2,000 grams?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

14. Do you currently have **written directives** for documentation of maternal HBsAg test results in the infant medical record?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

Prophylaxis Management of Pertussis for infants

15. Do you currently have **written directives** for administration of TDaP prophylaxis to all Labor and Delivery and Newborn Nursery staff to prevent transmission of Pertussis to newborn infants?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

16. Do you currently have **written directives** for administration of TDaP to all new mothers and infant caregivers to prevent transmission of Pertussis to newborn infants?

☐ Yes, written policy ☐ Yes, standing orders ☐ No ☐ Don't Know

18. Who is responsible for making policy within the hospital regarding neonatal practice (receipt/non-receipt of hepatitis B vaccine or HBIG) in the neonatal nursery? Please check all that apply.

- ☐ Neonatal nursery committee
- ☐ Chief pediatrician
- ☐ Chief obstetrician
- ☐ Neonatologist
- ☐ Nurse Manager
- ☐ Clinical nurse educator
- ☐ Pediatric department
- ☐ Other: ___________________________

19. What levels of neonatal care does your hospital provide? Check all that apply.

☐ **Level 1: basic** ☐ **Level 2: specialty care** ☐ **Level 3: neonatal intensive care**

20. Does your hospital participate in the New Mexico Vaccine for Children's Program VFC)? ☐ **Yes** ☐ **No** ☐ **Don't Know**

21. How do you report the birth dose of hepatitis B vaccine to the state of New Mexico?

☐ NMSIIS ☐ E Vitals ☐ Form

22. Who is responsible for this reporting? _________________________________

Who's Who: *(Please Print)*

Nursery Manager:_________________________ ________ Phone: ______________

OB/GYN Manager: _________________________ ________ Phone: _____________

L & D Manager: __________________________________ Phone: ______________

Infection Control: __________________________________ Phone: _____________

Laboratory Manager:______________________________ Phone: ______________

Medical Records Manager: __________________________ Phone: _____________

FAX ________________

Pharmacy Manager: __________________________________ Phone: ______________

Hospital Surveys

- At the follow-up meeting we always provide a written evaluation and our recommendations.
- Hospital Survey Summary.
- Summary of Infant Schedule.
- Copy of the CDC Hospital Standing Orders.

Survey Results

	Hispanic	White	Asian	Amer Indian/AN	Black	Other
Race/Ethnicity	34	20	4	4	0	1

	Private	Medicaid	Other
Insurance	41	20	4

Prenatal Testing Prior to Admission	YES	NO	Transcription
Maternal Prenatal Care	64	1	
HBsAG	59	6	
HIV	55	10	
Lab	46 (71%)		16 (25%)

Testing on Admission	YES	NO
HBsAg		1 pt. refused
HIV		1 pt. refused
HBsAg Positive	0	

Newborn MR	YES	NO	Transcription	Standing Order
< 2,000 grams	1	65		
Maternal HBsAg Result	61	5		
Maternal HIV Result	56	10		
Hepatitis B Vaccine Given	58 (89%)			Yes
HBIG Given	0			
Written Order not to give vaccine				

	None Documented	Guardian Refusal	Medically Unstable
Reason Not to Give Hepatitis B Vaccine	5	2	1

Summary of Infant Schedules for Hepatitis B Vaccine
(Note: 2,000 grams = 4.4lbs)

Infants ≥ 2000 grams Born to HBsAg-positive Women

Biologic	Dose	Age of Infants
HBIG *	0.5 mL	Within 12 hours of birth
Hepatitis B Vaccine-birth dose *	0.5 mL	Within 12 hours of birth
Hepatitis B Vaccine-dose 2	0.5 mL	1 to 2 months
Hepatitis B Vaccine-dose 3	0.5 mL	** 6 to 18 months

* The birth dose of the Hepatitis B vaccine should be given IM at the same time as HBIG but in different injection sites. The preferred sites are anterolateral thighs. If necessary, HBIG can be administered up to seven days post-partum. The second dose of the hepatitis B vaccine is to be administered 30 days after the birth dose.

Preterm Infants <2000 grams Born to HBsAg-positive Women

Biologic	Dose	Age of Infants
HBIG	0.5 mL	Within 12 hours of birth
Hepatitis B Vaccine Birth dose	0.5 mL (dose is not counted in the series)	Within 12 hours of birth
Hepatitis B Vaccine-dose 1	0.5 mL	1 month
Hepatitis B Vaccine-dose 2	0.5 mL	2 months
Hepatitis B Vaccine-dose 3	0.5 mL	** 6 to 18 months

For **preterm infants** weighing <2,000 grams, the initial vaccine dose (birth dose) should **not** be counted as part of the vaccine series because of the potentially reduced immunogenicity of hepatitis B vaccine in these infants; 3 additional doses of vaccine (for a total of 4 doses) should be administered beginning when the infant reaches the chronological age of 1 month.

Infants ≥ 2000 grams born to women whose HBsAg Status is Unknown

Biologic	Dose	Age of Infants
HBIG	0.5 mL	If mother is postnatally found to be HBsAg-positive, administer HBIG to infant as soon as possible, **but no later than 7 days after birth**
Hepatitis B Vaccine Dose 1 (birth dose)	0.5 mL	Within 12 hours of birth
Hepatitis B Vaccine Dose 2	0.5 mL	1 to 2 months
Hepatitis B Vaccine Dose 3	0.5 mL	** 6 to 18 months

Preterm Infants <2000 grams born to women whose HBsAg Status is Unknown

Biologic	Dose	Age of Infants
HBIG *	0.5 mL	Within 12 hours of birth
Hepatitis B Vaccine- birth dose *	0.5 mL (dose is not counted in the series)	Within 12 hours of birth
Hepatitis B Vaccine-dose 1	0.5 mL	1 month
Hepatitis B Vaccine-dose 2	0.5 mL	2 months
Hepatitis B Vaccine-dose 3	0.5 mL	** 6 to 18 months

*Women admitted for delivery without documentation of HBsAg test results should have blood drawn and

<u>Summary of Infant Schedules for Hepatitis B Vaccine</u>
<u>(Note: 2,000 grams = 4.4lbs)</u>

Infants ≥ 2000 grams born to HBsAg negative Women

Biologic	Age of Infants
Hepatitis B Vaccine-birth dose	Before hospital discharge
Hepatitis B Vaccine-dose 2	1 to 2 months
Hepatitis B Vaccine-dose 3	** 6 to 18 months

Infants <2000 grams born to HBsAg negative Women

Biologic	Age of Infants
Hepatitis B Vaccine-birth dose	Delay until 1 month after birth or hospital discharge
Hepatitis B Vaccine-dose 2	1 to 2 months
Hepatitis B Vaccine-dose 3	** 6 to 18 months

** 6 months use Pediarix/single antigen Hep B – 18 months use Comvax

Post Serology Testing

Perform post-vaccination testing for *anti-HBs (titer) Quantitative and HBsAg. 1-2 months after completion of the vaccine series, however no sooner than 9 months of age.

- HBsAg-negative infants with anti-HBs of >10mIU/ml are protected.
- HBsAg-negative infants with anti-HBs <10 mIU/ml, revaccinate with a second 3 dose series and re-test after last dose.
- Infants HBsAg-positive must be reported to Department of Health.

- Tricore - HBSABT
- SED - HBsAB Quantitation (7717)
- Quest - HBsAB Quantitation (8475)

Hospital Survey Results

Hospital	Survey #1	# MR	% BD	Survey #2	#Births	#MR	%BD	Change	#Births	Survey	# MR	% BD	BD Data	VFC
	Jul-07	25	100%	Oct-09	216	56	100%	same	242	Oct-10	69		Form	Y
	Jul-07	25	92%	Nov-09	529	79	93%	1%	494	Oct-10	81		NMSIIS	Y
	Oct-07	25	100%	Nov-09	1420	92	99%	-1%	1389		90		NMSIIS	Y
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	Feb-07	25	100%	Jan-10	307	73	93%	-7%	339		75		NMSIIS	Y
	Sep-08	25	0%	Nov-09	300	73	77%	77%	300		73		Form	Y
Los Alamos	Nov-07	25	3%	Jan-10	299	65	90%	87%	224		67		Form	Y
	Sep-09	25		Sep-09	162	25	100%	0%	162	Sep-10	61		SIIS	Y
	Apr-06	25	0%	Oct-08	1600	90	18%	18%	1600	Sep-10	91		Form	Y
	Jul-06	25	56%	Jan-10	5081	94	83%	27%	5340		94		E-Vitals	Y
	Oct-07	25	72%	Sep-09	3696	93	81%	9%	3923		94		NMSIIS	Y
	Mar-07	25	72%		3425	94	71%	-1%	3589		94		Form	Y
	Sep-07	25	96%	Mar-08	12	Not delivering								
	Feb-07	25	96%	Nov-08	500	76	97%	1%	549	Feb-10	82		SIIS	Y
	Jun-06	26	23%	Jul-08	1050	87	98%	75%	722	Dec-09	98	100%	Form	Y
	May-07	25	100%	Dec-08	1026	89	100%	same	1171	Apr-10	89		SIIS	Y
	Oct-07	23	96%	Aug-08	1034	89	99%	3%	1247	Jun-10	89		E-vitals	**N**
	Sep-07	24	96%	Dec-08	722	78	92%	-4%	490	May-10	80		Form	Y
	Sep-07	25	56%	Jan-10	693	86	99%	43%	617		83		e vitals	**N**
	Apr-06	25	16%	Nov-08	466	70	30%	14%	512	Apr-10	81		Form	Y
	May-07	25	96%	Oct-08	301	73	90%	-6%	312	Sep-10	74		Form	Y
	Jan-07	25	100%	Jun-09	2078	92	90%	-10%	2078		92		Form	Y
	Mar-07	25	100%	Sep-08	300	75	99%	-1%	322		74		Form	**N**
	Dec-07	25	100%	Nov-09	300	73	97%	-3%	752		85		Form	Y
	Jul-07	25	88%	Nov-08	180	43	95%	6%	200	Jun-10	65	-	E-vitals	Y
		623	69%		26060	1840	86%	17%	26927		1957			

National Hospital and New Mexico Survey Results

Hospital Policy Survey Questions	National Results 196/242 respondents	New Mexico 25/30 hospitals surveyed, no IHS	New Mexico 24/2 hospitals, surveyed, 2nd round, no IHS
Policy to review prenatal HBsAg results at time of admission to L&D	70 %	30 %	42%
*** Standing Orders to review prenatal HBsAg results at time of admission to L&D**	**80 %**	**23 %**	**33%**
Policy of HBsAg testing ASAP on admission w/o documented HBsAg result	62 %	20 %	38%
*** Standing Orders for HBsAg testing ASAP after admit for women w/o HBsAg result**	**55 %**	**30 %**	**63%**
Policy for repeat testing for pregnant HBsAg negative women at risk for HBV during pregnancy	11 %	3 %	7%
Policy for administration of HepB within 12 hrs. of birth for infants of HBsAg-positive mothers	80 %	40 %	46%
*** Standing Orders for administration of HepB within 12 hrs. of birth for infants born to HBsAg-positive mothers**	**69 %**	**50 %**	**71%**
Policy to administer HepB vaccine within 12 hours of birth for infants born to HBsAg-unknown mothers	71 %	30 %	46%
*** Standing orders to administer HepB vaccine within 12 hours of birth for infants born to HBsAg-unknown mothers**	**69%**	**50 %**	**67%**

* Standing Orders to routinely administer HepB to all newborns before hospital discharge	81 %	60 %	71%
Policy for administration of HBIG within 12 hours of birth for infants born to HBsAg-positive mothers.	77 %	36 %	42%
* Standing orders for administration of HBIG within 12 hours of birth for infants born to HBsAg-positive mothers	66 %	56 %	67%
* Hospital receives HepB vaccine at no cost from state or local health department for infants born to HBsAg-positive mothers	44 %	60 %	88%
Policy to review prenatal HIV results at time of admission	52 %	16 %	21%
Standing Orders to review prenatal HIV results at time of admission	38 %	20 %	25%
Policy for HIV testing ASAP after admit for women w/o documented HIV results	36 %	13 %	25%
Standing Orders for HIV testing ASAP after admit for women w/o documented HIV results	42 %	10 %	30%
Policy for administration of neonatal HIV prophylaxis to infants born to HIV positive mothers	32 %	0 %	0%

Maternal Medical Record Review	National Results 4,853 Medical Records	New Mexico Results 623 sets of Medical Records	New Mexico Results 2nd rd. 1840 sets if Medical Records
*** HBsAg**	**93 %**	**93 %**	**86%**
HIV	72 %	71 %	74%
Prenatal HBsAg-positive results	1 %	0 %	0%
Documentation of prenatal HBsAg test result			
*** Copy of lab report**	**10.7 %**	**17 %**	**15%**
Clinical transcription	77.4 %	78 %	66%
Testing on admission			
*** HBsAg**	**10 %**	**4 %**	**2.5%**
HIV	8 %	2 %	2%
Infant Medical Record Review	**National Results 4,853 Medical Records**	**New Mexico Results 375 Medical Records**	
Infants <2,000 grams at birth	8.1 %	2 %	2%
*** Recorded maternal HBsAg test result in infant record**	**91 %**	**77 %**	**84%**
Maternal HBsAg – positive test result	0.7 %	0 %	0%
*** Birth dose of Hepatitis B vaccine given to infant**	**71.2 %**	***71 %**	**85%**
*** Hepatitis B given by Standing Orders**	**88 %**	**83 %**	**88%**
MD order written not to vaccinate	7.9 %	1 %	
Was HBIG (hepatitis B immune globulin) given to the infant?	5 %	0.01 %	2%
Was infant HBIG administered as a result of standing orders	38 %	20 %	75%

Revised 2.10

ORDERS FOR OBSTETRICAL PATIENT

Date: Time: (am/pm) Allergies: Ht: Wt:

ADMISSION:

1. Admit to OB.
2. Obtain signed Labor Consent.
3. **Labs:**
   a. clean catch urine for protein, sugar, ketones and urine drug screen.
   b. CBC
   c. If Hepatitis B status unknown, draw HBsAG.
4. **Labor assessment**: vaginal exam (unless pt is bleeding briskly or ROM), fetal heart tones, uterine activity.
5. **Vital signs:** TPR, BP and DTRs.
6. **Monitoring:** EFM/UA for 30 minutes.
7. Call MD/CNM with report.

LABOR:

1. **Vital signs:** TPR Q2H, BP Q1H or more if unstable.
2. **IV:** . IV Lactated Ringer's to keep open, if needed or Saline Lock when active labor
3. **Monitoring:** Intermittent FHM per ACOG Protocol: Q30min until 5 cm, then Q15min. Continuous fetal monitoring for high-risk patient.
4. **Diet:** Regular diet as tolerated until active labor and then clear liquids.
5. In active labor, if GBS+, **Ampicillin 2g** IV loading dose followed by **Ampicillin 1g** IV Q4H until delivery. If allergic to PCNs, give **Clindamycin 900mg** IVPB Q8H until delivery. If allergic to PCNs and Macrolides, notify MD/CNM.
   Date/Time of first dose __________________.
6. **Maalox** 30 ml (or formulary equivalent) PO Q4H PRN heartburn.

DELIVERY:

1. **Methergine** (Methylergonovine) 0.2mg IM or IV for bleeding per MD/CNM order.
2. **Oxytocin** (Pitocin) 10units/ml IM or Oxytocin (Pitocin) 30units/500ml IV at 250ml/hr x 1 bag per MD/CNM order after delivery of placenta.
3. Initiate Newborn Nursery Orders once Newborn is delivered. Admit to Nursery, Dr.__________________

POST-PARTUM:

1. **Recovery Vital Signs:** HR, RR, BP and fundal/lochia checks at least q 15min X 1 hr, then q 30min X 2. Temperature in the first hour post delivery. Then Vital Signs TID or Q4H if unstable.
2. **IV:** Continue present IV with Oxytocin at 125-250ml/hr as needed to control bleeding. Discontinue IV after 1-2 hours if bleeding stable.
3. Water peri care with instructions.
4. Ice pack to perineum x 6 hours post-partum PRN swelling or discomfort.
5. **Diet:** Regular diet with high protein snacks. If Diabetic then ADA diet with no concentrated sugars.
6. **Labs:** CBC on first post-partum day.
7. Indwelling foley catheter if patient is unable to void 6 hrs post-partum and notify MD.
8. For 3rd-4th degree laceration, no enemas, laxatives, or rectal meds. Give Colace 100mg by mouth BID.
9. Sitz bath TID to patient with perineal repair PRN.

Medications:

- **Lansinoh** (Lanolin) topical ointment to nipples for breast-feeding moms.
- **Dermoplast** spray (Benzocaine 20%) at bedside PRN perineal repair/soreness.
- **Witch hazel** pads (Tucks) to perineum PRN perineal repair/soreness.
- **Colace** (Docusate Sodium) 100mg by mouth BID PRN perineal repair and/or constipation.
- **Methergine** 0.2mg by mouth Q8H x 48H PRN bleeding. Notify MD.
- For pain relief, start with patient preference of:
  - **Ibuprofen** (Motrin) 800mg Q6-8H by mouth PRN pain (keep total maximum dose of Ibuprofen per day to 3200mg or less) or
  - **Acetaminophen** (Tylenol) 325mg 2 tablets Q4H by mouth PRN pain (keep total maximum dose of Acetaminophen per day to 4000mg or less).
- For pain unrelieved by Tylenol or Motrin, **Darvocet-N-100** (Propoxyphene 100mg/Acetaminophen 325mg) 1 tablet Q3H by mouth PRN pain of 1-4 on pain scale; 2 tabs Q3H by mouth for pain 5-10 on pain scale or unrelieved pain.
- For pain unrelieved by Darvocet, **Percocet** (Oxycodone 5mg/Acetaminophen 325mg) 1 tab Q4H by mouth PRN pain of 4-7 on pain scale; 2 tabs Q4H PRN pain 8-10 or unrelieved pain.
- May give **Ibuprofen** or **Tylenol** with **Darvocet** for pain not relieved by Darvocet alone before Percocet.
- If NPO, **Toradol** (Ketorolac) 30mg SIVP Q6H PRN pain. Notify MD if pain unrelieved.
- **Ambien** (Zolpidem) 5mg by mouth QHS PRN insomnia. May repeat x 1, within 2 hr of initial dose.
- **Maalox** 30 ml (or formulary equivalent) PO Q4H PRN heartburn.

10. In case of Rh- mother, perform Rhogam blood studies. Obtain **Rhogam** 300mcg from Blood Bank. Give mother **Rhogam 300mcg IM** if baby has Rh+ blood.

Maternal Vaccines

11. **Measels, Mumps, Rubella (MMR)** 0.5 ml Sub-cutaneous if Rubella titer is non-immune.
12. **Tdap** 0.5 ml IM if not had Tetanus vaccine within the last 5 years.

Faxed to Pharmacy: Date/Time ______________ Faxed to Registration: Date/Time ______________ Initials: __________

ROUTINE ORDERS FOR NEWBORN NURSERY

PATIENT STICKER

Date:___________ Time:_________(am/pm) Weight:_________ NKDA

ADMISSION:

1. Admit to Nursery. Dr:_______________ per Dr.______________.
2. Record Apgar scores at 1 and 5 minutes. If 5 min score less than 7, notify MD and record Apgars every 5 mins until greater than 7.
3. During day shift, notify MD on-call of admission. During night shift, notify MD of births prior to 9pm. Notify MD at any time if any concern about infant's status.
4. Vital Signs and Nursing Assessment on admission and every 30 minutes until stable for 2 hours, then every 6 hrs. First temperature to be rectal. Subsequent temperatures to be rectal if axillary temperature abnormal or any questions about infant's status.
5. Weight (in kilograms and pounds), length, head, abdominal and chest circumference on admission and at discharge. Daily weights (calculate percent weight loss daily).
6. Plot gestational age/birth measurements on chart on admission. Notify MD if SGA, LGA, less than 38 weeks, greater than 42 weeks, infant of diabetic mother, any concerns on admission about health status or maternal risk factors.
7. Record maternal risk factors and prenatal labs on initial newborn profile sheet on admission.
8. Notify MD at any time if pulse less than 90bpm or greater than 200bpm, lethargy, cyanosis, respiratory distress, feeding difficulties, pallor, abdominal distention, bilious vomiting, temperature instability, no void or stool in 24 hours, or if any other concerns about infant's health.

MEDICATIONS:

1. Vitamin K (Phytonadione) 1mg IM within first hour of birth if greater than 1500 grams. Give 0.5mg if less than 1500 grams.
2. Erythromycin ophthalmic ointment 2 cm ribbon on both conjunctival sacs within first hour of birth.
3. Hepatitis B vaccine for infants weighing greater than 2 kg: Infants of HBsAg negative mothers-Hepatitis B vaccine 0.5ml IM prior to discharge. Infants of HBsAg positive mothers-Hepatitis B vaccine 0.5ml IM and HBIG 0.5ml IM on admission post bath, given in separate sites within 12 hours of birth. For HBsAg status unknown mothers-test mother for status; administer Hepatitis B vaccine 0.5ml IM to newborn on admission post bath within 12 hours of birth.
4. For infants weighing less than 2 kg, check with MD.
5. Eucerin (or equivalent) cream to skin PRN dry skin.
6. Normal Saline nose drops PRN stuffy nose. Use bulb syringe to suction oral secretions PRN.
7. Bacitracin ointment PRN following circumcision.
8. Cord care with alcohol every 6 hrs with Vital Signs. Remove cord clamp between 18 and 24 hrs of age.
9. Oxygen by blowby or mask may be given by nurse attending delivery PRN cyanosis. If cyanosis does not resolve by 10 mins of age, obtain Vital Signs, Oxygen Saturation, and notify MD.
10. Administer Dextrose Water for comfort as needs for invasive procedures.

LABS/TESTING:

1. Type and Coombs on cord blood when mother RH(-) negative. CBC and total bilirubin by heelstick if Coombs positive and call results to MD.
2. Baseline CBC with manual differential if maternal Group B Strep(+) positive and maternal antibiotics not started greater than 4hrs prior to delivery.
3. Baseline CBC if maternal abruption, infant of diabetic mother, maternal placenta insufficiency (IUGR)
4. One Touch glucose if SGA, LGA, less than 38 weeks, infant of diabetic mother or obese mother, infant requiring oxygen or higher level nursery care, at 2, 4, 6, 12, 24, and 48 hrs of age. One Touch glucose PRN if jitteriness, irritability, lethargy, poor feedings, concerns. If One Touch glucose less than 40 mg/dl, STAT lab glucose, notify MD and begin treatment with feeds or IV as ordered.
5. Neonatal Genetic Screen between 24-96 hours old prior to discharge.
6. Neonatal Bilirubin drawn with Genetic Screen on morning of anticipated discharge.
7. Hearing screen prior to discharge.

FEEDINGS AS FOLLOWS FOR WELL BABIES:

1. Breast feeding: may breastfeed anytime after birth and by at least 2 hrs of age, then on demand at least every 2-4 hrs. If supplement with formula requested or required due to weight loss, feeding problems, hypoglycemia etc. encourage family to give using syringe or cup rather than nipple.
2. Formula feeding: may feed ad lib every 2-4 hrs. Parental choice of formula with iron.

UPON DISCHARGE

1. Review newborn care with parent/care provider prior to discharge. Check that all discharge criteria met and teaching complete prior to discharge. Follow-up appointment to be scheduled prior to discharge.
2. No infant to be discharged without MD's order.

Faxed to Pharmacy: Date/Time Faxed to Registration: Date/Time Initials:

Los Alamos Medical Center

Department: OB	Effective Date: 1/08
Policy Title: Hepatitis B Vaccination of Newborns	Date Revised:

PURPOSE
To assure that all newborns born at LAMC receive the first dose of Hepatitis B Vaccine prior to discharge.

POLICY
OB nursing staff will assure that all newborns born at LAMC with birthweights >2 kilograms will receive the Hepatitis B Vaccine prior to discharge.

PROCEDURES

Prior to delivery:

1. The admitting Labor and Delivery RN will review the HBsAg (hepatitis B surface antigen) laboratory report from the mother's prenatal record. A copy of the original laboratory report will be placed into the mother's L&D medical record and a copy into the baby's medical record.
2. If no HBsAg laboratory report is available, order the test ASAP. Have results called to OB as soon as ready.
3. Alert other staff involved in care of patient if the mother is HBsAg-positive or if her hepatitis B status is unknown.
4. If mother is HBsAg-positive or of unknown status, inform mother of need for immunoprophylaxis of her baby within 12 hours of birth. Inform mother that breastfeeding is OK and encouraged.

After delivery:

Infants born to HBsAg negative mothers

1. Give Hepatitis B (HepB) vaccine (0.5 ml, IM) before the baby is discharged. Usually, the vaccine is administered at the same time the discharge bilirubin is drawn on the morning of the expected discharge day.
2. Document administration of Hepatitis B vaccine in the infant's medical record.
3. Provide the Vaccine Information Statement to mother and document in the infant's medical record. Give the mother her infant's immunization card indicating the date and type of vaccine administered.
4. If physician chooses not to give the birth dose, **an order must be written** and placed in the infant's chart. A copy of the mother's negative HBsAg laboratory test must also be placed in the infant's chart.

Infants born to HBsAg status unknown or positive mothers

1. Give HepB vaccine (0.5 ml, IM) within 12 hours of birth.
2. If mother's HBsAg status comes back positive, give Hepatitis B Immune Globulin (HBIG 0.5 ml, IM) ASAP. HBIG must be given within 7 days of birth.
3. Document administration of HepB vaccine (and HBIG) in the infant's medical record.
4. If mother's status is still unknown at time of nursery discharge, clearly document how to reach parents and infant's primary care provider in case further treatment is needed.

4. For infants weighing < 2 kg (2,000 gm), whose mother's HBsAg status cannot be determined within 12 hours, give **both** HBIG (0.5 ml, IM) and HepB vaccine (0.5 ml, IM) at separate sites within 12 hours of birth. This birth dose of HepB vaccine will not be counted as the first dose.
6. Document administration of HepB vaccine (and HBIG) in the infant's medical record.

References: Center for Disease Control, NM department of Health Immunization Program

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