UTAH DEPARTMENT OF HEALTH

Using Hospital and Midwife EHDL & CMV Report Carols to I ncrease Accountability and Improve Compliance

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The content of this presentation does not relate to any product of a commercial entity, therefore the presenters have no relationships to report.

/rē'pôrt kärd/



- an evaluation of performance (Merriam-Webster)
- a report on how well an organization has been doing recently (COBUILD Advanced English Dictionary)
- a periodic report, in writing, on progress (Webster's New World College Dictionary)
- a history of record or accomplishment as adjudged by others. It is a means to compare performance to a standard or expectation. (Dictionary.com)



Chronically underperforming hospital NBHS program

- High refer rate
- High LTF-U
- Poor documentation
- Unresponsive to State EHDI staff







GARY R.

Governor

Utah Department of Health

W. David Patton, Ph.D. Executive Director Division of Family Health and Preparedness Marc E. Babita, MD Division Director Children with Special Health Care Needs Bureau Noël Taxin, M.S. Bureau Director

CEO Mario Capecchi Medical Center Somewhere street Yojur Town, UT 84099 July 8th, 2014

How Are You Doing [?]

Hearing loss is the number one birth defect. When identified early in life many of the resulting challenges to hearing loss are mitigated through early diagnosis and intervention. Recognizing this, in 1998, the Utah Legislature passed a bill which requires that all newborns receive a hearing screening before discharge from the hospital. It is our intent to keep you informed as to the efficiency of your hospital as it applies to newborn hearing screening and compliance with Section 26-10-6, Rule 398-2 of the Utah Code and, more recently (2013) Section 26-10-10, Rule 398-4 pertaining to testing for Congenital Cytomegalovirus. This "report card" compares your hospital with the Minimum Standards of Performance set by the Utah Advisory Committee on Newborn Hearing Screening.

The Utah EHDI (Early Hearing Detection and Intervention) Team would like to thank you for your continued support of this important program.

Any comments or questions you have regarding this process may be addressed to:



CHILDREN WITH SPECIAL HEALTH CARE NEEDS BUREAU Street Address: 44 North Mario Capecchi Drive * Sah Lake City, UT 84113 Maling Address: P.O. Box 144620 * Sah Lake City, UT 841144620 Telephone (801) S84-S315 * Facsimile (801) S84-S492 www.bealth.utal.gov





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				Newborn He	earing Screening	g			
				EFFICIEN	CY REPORT				
			For:	2					
					r 1, 2013 – March 31,	2014			
					logist: Susie Bohning nator: Christy Thacker				
	#1	#0		and an an an and a second s	1999년 1997년 - 11월 1997년 19 1997년	32	47	#0	
	#Births	#2 #Births reported in Hearing	#3 % Inpatient Screened prior to hospital	#4 % Outpatient Screened or Re-screened	#5 % Referred to PCP to allow for CMV testing before 21	#6 % Hearing Diagnostics before 3 months	#7 % Reports Submitted Weekly	#8 % Overall Efficiency	
	reported by Vital Records database	Screening Database (HT)	discharge	before 14 days of age	days of age	of age	weekiy		
State Standard	Vital Records database No great difference between th	Database		age 90%	days of age	of age 95%	100%		

Report prepared by: Shannon Wnek, AuD, CCC-A Utah EHDI Compliance/Training Coordinator











NBHSAC Feedback:

- Better to send to clinical compliance
- Hospitals/managing audiologists wanted to replicate the data and couldn't









NBHSAC Feedback:

 Initially included all babies and complained of NICU babies not being broken out of stats
 Next version took out NICU babies, transfers, refused

State EHDI:

- Include Quality Assurance (Data) elements
- Include CMV referral and testing metrics



			Hi-Track (HT) D	ita			
	#Births Reported by Vital Records (VR)	#Births Reported in HiTrack (HT)	% Reports Submitted Weekly	% Heelstick Number entered	% Mother's Last Name as primary contact	% IP Refer - Documented CMV Fax Form to PCP	% OP Refer – Documented CMV Fax Form to PCP
Data Source	VR/HT comparison report	Flow Chart (HT)	Data Coordinator	Data Coordinator	Data Coordinator	Data Coordinator	Data Coordinator
State Standard	No greater than a difference of 3 births between the two data sources above		100%	98%	100%	100%	100%
Your Hospital	67	67	100%	100%	100%	100% ³	N/A ⁴

	% Inpatient Screened: prior to hospital discharge*	% Outpatient Screened or Rescreened*	%Hearing Diagnostics: before 3 months of age	Referral Rate
Data Source	Hospital Summary Report (HT)	Hospital Summary Report (HT)	Milestone Report (HT)	Hospital Summary Report (HT)
State Standard	100%	90%	95%	< 4%
Your Hospital	100%	100%	N/A	5.8% ²

% Overall Hospital Efficiency	Efficienc	cy Rating
	Excellent	96-100%
97.5%	Good	95-90%
(Excellent)	Fair	<mark>89-80%</mark>
(Execution)	Poor	< 80%

*Less refused, transferred out, and deceased

¹OP Screened: No babies were missed for follow-up screening

²Referral Rate: 9 babies did not pass

³Inpatient CMV Fax: 9 CMV fax forms sent.

⁴Outpatient CMV Fax: <u>N/A – All babies that returned for OP have passed.</u>



Newborn Hearing Screening Efficiency Report

Rating Period: 1.1.15 to 6.30.15

Program Audiologist:

Program Coordinator:

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			Hi-Track (HT) [Data			
	#Births Reported by Vital Records (VR)	#Births Reported in HiTrack (HT)	% Reports Submitted Weekly	% Heelstick Number entered	% Mother's Last Name as primary contact	% IP Refer - Documented CMV Fax Form to PCP	% OP Refer – Documented CMV Fax Form to PCP
Data Source	VR/HT comparison report	Flow Chart (HT)	Data Coordinator	Data Coordinator	Data Coordinator	Data Coordinator	Data Coordinator
State Standard	No greater than a difference of 3 births between the two data sources above		100%	98%	100%	100%	100%
Your Hospital	87 (100%)	87	52%	96.5%	100%	0% ³	N/A ⁴

	% Inpatient Screened: prior to hospital discharge*	% Outpatient Screened or Rescreened*	%Hearing Diagnostics: before 3 months of age	Referral Rate	
Data Source	Hospital Summary Report (HT)	Hospital Summary Report (HT)	Milestone Report (HT)	Hospital Summary Report (HT)	
State Standard	100%	90%	95%	< 4%	
Your Hospital	98.9%	82.4% ¹	50%	18.6% ²	

% Overall Hospital Efficiency	Efficienc	y Rating
Poor	Excellent Good	96-100% 95-90%
69%	Fair	89-80%
0970	Poor	< 80%

*Less refused, transferred out, and deceased

¹OP Screened: 3 babies missed for follow-up screening

²Referral Rate: 16/86 babies did not pass; if < 4% then only 3 or 4 babies would need a rescreen

³Inpatient CMV Fax: 0 of 16 CMV fax forms sent

⁴Outpatient CMV Fax: Not Applicable at this time

COMMENTS: As part of the CMV mandate, a CMV fax form needs to be sent to the PCP if the baby fails their inpatient screening. If the baby does not pass their outpatient screening a 2nd CMV fax form must be sent to the PCP to request referral for CMV testing. Data is not routinely be submitted on time. This is critical for timely follow-up. **Actions**: A quality improvement plan needs to be developed to improve the NBHS overall standing.

Report prepared by: Shannon Wnek, AuD, Utah EHDI Audiology Coordinator; Krysta Badger, Utah EHDI Data Coordinator



Newborn Hearing Screening Efficiency Report

Rating Period: January 1, 2017 – June 30, 2017 Program Audiologist: To Program Coordinator:

Screening								
	Total Births	% Inpatient Screened	Inpatient Referral Rate	% Outpatient Complete	# Lost to Follow-up (# no follow-up/# not pass)	# Hearing Diagnostics Complete		
Data Source	Hospital Flow Chart (HT)	Hospital Flow Chart (HT)	Hospital Flow Chart (HT)	Hospital Flow Chart (HT)	CDC Survey (HT)	Hospital Flow Chart (HT)		
State Standard		<mark>100%</mark>	< 4%	90%	< 15%	h-dt-		
Your Hospital	2092	99.8%	1.1%	100%	0	9/9 = 100%		

*Less deceased, refused, transferred out (and NICU for IP). Lost to Follow-up denominator equals all children not passing a screening IP and/or OP.

	% Data Submitted Weekly	1 st CMV Fax Documented	2 nd CMV Fax Documented	2017 Heelstick Errors	2017 Missing Babies	2017 Blank Gender	2017 Incorrect DOB
Data Source	Data Coordinator	User Defined (HT)	User Defined (HT)	VR/HT	VR/HT	VR/HT	VR/HT
State Standard	100%	100%	100%			-	-
Your Hospital	100%	9/26 = 34.6% (8 NICU)	2/8 = 25% (5 NICU)	10	0	22	5

COMMENTS: Data quality can be improved

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by watching out for incorrect/missing heelstick numbers and genders. CMV documentation for the 1st refer needs improvement. Screening rates, follow-up on failed screens, and data timeliness are great.

Peer Pressure







Replicating Reports



CMV Recommended Actions:

- Reports User defined reports CMV Hospital Use DONT CHANGE
 - Choose your time frame
 - Choose your facility
 - Generate
 - This report will bring up all babies who should have qualified for CMV testing (meeting the qualifications listed below)



- This will bring up a report with all of the children who should have been referred for CMV testing as well as if a recommended action was entered into Hi-Track for "Notify PCP of Failed Initial Screen" and "PCP Referral for CMV PCR".
 - If there is a date in EITHER of these columns, they are counted as having been referred to PCP
 - Please note that this report can only have 8 columns, we have chosen these based on what seems most useful for all.



 Once Hospital Reports were streamlined, it was time to move on and introduce the concept to our OOHB



Midwives and NBHS



From: Shannon Wnek <<u>swnek@utah.gov</u>> Date: Wed, Aug 23, 2017 at 3:08 PM Subject: QAZ: Newborn Hearing Screening data - OOHB To: Amy Ihrig <<u>joyfulbirth@truevine.net</u>>

Greetings,

Thank you for being a part of our newborn hearing screening program. We appreciate the efforts you make to ensure your babies receive a hearing screening. Since this collaboration began, we have increased the hearing screening rate from ~34% (2007) of out of hospital births (OOHB) to now ~90% of OOHB. In an effort to keep you aware of your screening rate, we are exploring a new "report card". Included are the number of births we have on record from **03/01/2016 to 04/30/2017**, the # screened, % screened, refer rate (# of babies that fail), lost to follow-up rate, and #missed. If applicable, the # babies qualified to receive CMV testing as well as the % that received CMV testing.

If you have any questions and/or coments about your report card, please don't hesitate to contact me. Thanks again,

Shannon

Shannon Wnek, AuD, CCC-A

Midwives Report Card





Newborn Hearing Screening Efficiency Report Birthing Center (BC)/Midwife: Jane Doe

Rating Period: 03/01/2016 - 04/30/2017

		Screen	ing Data			
	Births	# Screened	% Screened	1 st Screen Refer Rate	Follow-up Rate (rescreened/referred)	# Missed
State Standard			100%	< 7%		
Midwife	6	6	100%	0	N/A	0

+

	% Reports Submitted Weekly	# qualified for CMV testing (IP & OP Refer*)	% receiving CMV testing
State Standard	100%		100%
Midwife		N/A	N/A

COMMENTS:



Newborn Hearing Screening Efficiency Report Birthing Center (BC)/Midwife:

Rating Period: 03/01/2016 - 04/30/2017

	n	Screen				
	Births	# Screened	% Screened	1ª Screen Refer Rate	Follow-up Rate (rescreened/referred)	# Missed
State Standard			100%	< 7%		
Midwife	20	20	100%	12/20=60%	100%	0

	% Reports Submitted Weekly	# qualified for CMV testing (IP & OP Refer*)	% receiving CMV testing
State Standard	100%		100%
Midwife		1	1



Report prepared by: Shannon Wnek, AuD Utah EHDI Audiology Coordinator Krysta Badger Utah EHDI Data Coordinator

* Infants failing 1st screen after 14 days of age are qualified for CMV testing, these infants are not reflected in this number. This ONLY counts those who failed 2 screenings.

Midwives and NBHS



From: Suzanne Smith <<u>suzanne@betterbirth.com</u>> Date: Mon, Aug 28, 2017 at 12:20 PM Subject: Re: QAZ: S Smith Newborn Hearing data To: Shannon Wnek <<u>swnek@utah.gov</u>>, "Badger, Krysta" <<u>kbehring@utah.gov</u>>

Hi, Shannon. I love report cards that say 100%! I think this feedback is great.--Suzanne

Cytomegalovirus (CMV)



- In 2013, Utah mandated CMV testing before 21 days of life for infants who failed two hearing screenings or who failed their first hearing screening at 14 days or later of life
- Extra steps were put into place in addition to the regular EHDI protocol to assist screeners on what to do to help families obtain CMV testing
- As the mandate was progressing, the following concerns were noted:
 - Initial percentages of children tested were low (36% of eligible kids tested in the first 6 mos)
 - Provider support was low and/or confusion was present
 - NBHS programs were doing two OP screens and if the 2nd screen was a pass, then the child wasn't being referred for CMV testing
 - Data/notes weren't being entered in Hi-Track







- Due to popularity of EHDI report cards, a CMV report card was designed to increase the percent of CMV testing for eligible babies
- The CMV report card differed from the EHDI report card in the following ways:
 - CMV report only reports on babies who have failed two hearing screenings or failed the first screening if after 14 days (which puts them in the population eligible for the CMV testing mandate)
 - CMV report specifically lists the reasons why testing was not completed
 - Numbered comments and recommendations are made tailored to the specific NBHS programs weaknesses and strengths

Cytomegalovirus (CMV) Early Report Cards- 1st Draft



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- PCP felt testing was not needed (Pediatrician, MD) 0
- Doctor did not receive Fax requesting CMV testing although sent to him -0
- PCP unaware of 21 day deadline for CMV testing (Pediatrician, DO) 0
- Wrong PCP notified by fax -1 (Correct pediatric practice, wrong doctor)
- Parent refused testing-1
- Babies with comorbidities including otitis media, cleft lip and palate and Down's syndrome were not referred for testing by PCP - 0

Comments and Recommendations

- Overall, a great job with 80% of the babies being tested when deleting the one whose parents refused testing. This is a 34% increase from the previous 6 months!
- 2. All CMV tests were completed by the 21 day cut off!
- Two of the babies who were not tested, passed their OP screen but still qualified for testing because their first test was after 14 days.
- One baby who was not tested passed the second OP screen but should have been referred for testing
 after the initial failed OP screen.
- 5. For the parent who refused testing further education maybe helpful. The CMV brochures, Congenital CMV and Hearing Loss and What Women Need to Know about CMV, available in English and Spanish, are useful tools to educate parents. Brochures templates are available on the CSHCN website, <u>http://www.health.utah.gov/cshcn/programs/cmv.html</u>, or we can send some if you need them!
- 6. Congratulations April and Kevin. You are one of the top three hospitals in Utah for the percent of eligible babies being tested for CMV! Keep up the exemplary work!

Cytomegalovirus (CMV) Early Report Cards- 1st Draft



- Feedback from birthing sites and screening/provider personnel
 - Too much information overall
 - Repetitive information from Hi-Track and from EHDI report cards
 - Information was present that that wasn't relevant to their program's performance
 - Didn't like the red (concerns) and green (strengths) color-coding
- Changes made:
 - Added a chart for easier visual aid
 - Reduced amount of unnecessary or repetitive information
 - Changed the color-coding

Cytomegalovirus (CMV) Early Report Cards- 2nd Draft



Test Results (FYI)

- CMV Positive 0
- CMV Negative 6
- False Positive 0
- Refused Testing 0
- Tested by Saliva -3, Urine -3, Blood -0), Multiple tests-0

Reasons Found for Not Testing Eligible Infants

- Difficulty obtaining the CMV urine sample 1
- Babies with comorbidities including otitis media, cleft lip and palate and Down's syndrome were not referred for testing – 1 (This baby had Down Syndrome with COM.)
- Infant not referred for testing by the Screening Program –1 (This baby failed her first screen after 14 days.)

Comments and Recommendations

- 1. All of the CMV testing was done prior to 21 days excellent.
- When the first failed hearing screen occurs after 14 days, the child should be referred for CMV immediately after that failed screen.
- 3. It is important to remember that **babies with comorbidities such as Down syndrome or otitis** media could also have cCMV and should be referred for CMV testing.
- 4. Keep up the good work.

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Cytomegalovirus (CMV) Early Report Cards- 2nd/3rd Drafts



- The second and third drafts still weren't exactly what we were looking for (third draft was very similar to second draft)
- Changes made:
 - Removed chart that described why their particular infants met eligibility for CMV testing

Cytomegalovirus (CMV) Current Report Card (4th Draft)



Test Results (FYI)

- CMV Positive 1
- CMV Negative 33
- False Positive 1
- Refused Testing 2
- Tested by Saliva -9, Urine -26, Blood -1 Dried blood spot), Multiple tests-1

Reasons Found for Not Testing Eligible Infants

- Fax forms were not received by the PCP 4
- Parent did not follow through with testing 1 (PCP wrote a lab order but parent did not follow through, parent reported she had no recall of CMV testing.)
- PCP chose not to test after baby passed the second OP screen 1

Comments and Recommendations

- 1. Nice job getting 91% of the CMV testing for 34 babies completed by 21 days.
- 2. We are hoping the new CMV order will help with old problems such as the PCP not receiving the fax requesting testing. If possible walking the parents to the lab immediately after failure of the first OP screen will help with parents with following through with testing.
- 3. Keep up the great work. IMC has the most babies eligible for CMV testing so there is a lot to keep us with!

Cytomegalovirus (CMV) Current Report Card (4th Draft)



• What's next?

Adding Hi-Track ID numbers so hospitals can go back and look at the specific infant in order to problem solve for future improvement

Cytomegalovirus (CMV) Current Report Card



- Were the report cards helpful?
 - Absolutely, we were able to discover what NBHS programs were doing really well and why they were doing well and then transfer that information to programs who were struggling



Next steps: Feedback and continue modifying as needed

Cytomegalovirus (CMV) Midwives Report Card



- Midwives face different issues as compared to birthing hospitals so the CMV report card was tweaked to best suit their circumstances
 - Test fewer babies
 - Higher amount of uninsured babies
 - Less buy-in for CMV testing
- A personalized letter was used in place of a 'report card'
 - Provides general CMV information
 - Provides specific information on their infants who were not tested for CMV
 - Recommendations on how to improve

Cytomegalovirus (CMV) Midwives CMV Educational Letter/ **Report Card**



I Will TOIllow-UP With a Call to see if you have any questions. If you do have questions at any time, please the children of files to Call or email me at any time. Thank you for all of your hard work on behalf of the children of the set of the children of the set of the set

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CMV testing.

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Best Regards,

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first failure and not wait for the second screen to insure meeting the important deadline of 21 days of life for CMV testing.

Early Intervention (EI) Report Card





Newborn Hearing Screening Outcomes Report Audie Owlagist, Au.D.

Rating Period: January 1, 2018 - December 31, 2018

Type of Loss	Bilateral SNHL	Unilateral SNHL	Permanent Conductive	Undetermined	Mild Loss	CMV +
Referred to El						
Enrolled in El						A A A A A A A A A A A A A A A A A A A
Refused El						



Schedule Follow-Up Diagnostic ABR ENT referral as needed Referral to ENT, Genetics, Ophthalmology







- Pick a trusted team to vet, take their feedback and adjust
- Purpose is improvement not for punishment
- Be clear how you generated the data
- Ask what data is helpful to them?
- How can this data help us to help them achieve their goals? (e.g. early retirement/new equipt/dedicated NBHS Coord/Managing Audiologist)
- Invested auds/progs learn the database and how reports can help their cause





- Added "Most Improved/QI" Award
- Added "CMV Top Performer" Award
- Make sure not so complicated and timeconsuming that you can't get them done
- Keep it simple and pertinent (what's interesting/impt to us may not be to them)
- Forced State EHDI to look at data with a fine-toothed comb - found out where to focus our QA/QI energies





Questions? Questions? Questions?

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