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For Discussion Purposes Only
Congenital Hypothyroidism and Congenital Adrenal Hyperplasia Algorithms and Screening Metrics
2002-2006

Endocrine Project Report
Region 4 Genetics Collaborative
May 22, 2008
Okemos, Michigan

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Preliminary Results

Region 4 CH Algorithm and Screening Metrics¹

	Method	Positive Criteria Hrs	TSH	T4	Year	Births	Total +	+/1000	S +	B +	Cases	Det. Rate	PPV %	False + rate	
Michigan final	Auto Delfia TSH Only 2004-2006 2002-2003	24-36 37-167 168-743 >743	>33 >=50 S+ >24 >=50 S+ >13 >=50 S+ >9 >=50 S+		2002	128689	6260		-----	-----		108	1/1192	2	4.78
					2003	129889	4964		-----	-----		88	1/1476	2	3.75
					2004	126789	1407		178	1229	67	1/1892	5	1.06	
					2005	124942	1362		172	1190	72	1/1735	5	1.03	
					2006	123095	694		156	538	59	1/2512	7	0.52	
						633404	14687	23.2			394	1/1608	3	2.26	
Wisconsin final	AutoDelfia TSH Only 0-25 26-96 96-14days 14+days	>=37 >50 S+ >=30 >50 S+ >=17 >17 S+ >=15			2002	67408	333		85	248	32	1/2107	10	0.45	
					2003	68893	371		72	299	43	1/1602	12	0.48	
					2004	68472	410		85	325	58	1/1181	14	0.51	
					2005	68606	324		62	262	42	1/1632	16	0.32	
					2006	68739	348		80	268	45	1/1528	13	0.44	
						342118	1486	4.3			220	1/1555	15	0.37	
Minnesota final	AutoDelfia TSH Only 0-26 27-48 49-168 >168	>=37 >=30 >=23 >10			2002	68064	470		32	438	28	1/2431	6	0.65	
					2003	69999	291		41	250	32	1/2187	11	0.37	
					2004	70259	291		36	254	20	1/3513	7	0.39	
					2005	71058	246		38	208	34	1/2090	14	0.30	
					2006	73473	190		55	135	36	1/2161	18	0.21	
						352853	1488	4.2			150	1/2352	10	0.38	
Illinois final	AutoDelfia TSH Primary T4 Secondary All	1. >53 2. Top 3% 3. Top 0.5% and<54 4. Not in top 0.5% but 36-54 5. Top 0.5%		<5 5-7.99	2003	179082	1382		184	1198	84	1/2132	6	0.72	
					2004	177417	1337		167	1170	89	1/1993	7	0.70	
					2005	176089	1337		165	1172	93	1/1893	7	0.71	
					2006	174975	1341		142	1199	111	1/1823	7	0.71	
						707563	5397	7.6			373	1/1897	7	0.71	
Indiana final	AutoDelfia TSH/T4 primary All	>25.5		<5.0	2002	85506	2427		44	2383	32	1/2672	1	2.80	
					2003	87115	2459		42	2417	29	1/3004	1	2.79	
					2004	85923	2290		50	2240	29	1/2963	1	2.63	
					2005	85570	2164		55	2109	41	1/1990	2	2.48	
					2006	89786	1848		40	1808	28	1/3206	2	2.02	
						433900	11188	25.8			159	1/2729	1	2.51	
Ohio final	AutoDelfia <=48 >48 All	>28 >34 >50		<=8 <=8 Any value	2002	149247	1376		224	1152	83	1/1798	6	0.87	
					2003	149670	1539		244	1539	88	1/1701	6	0.97	
					2004	149269	1177		173	1006	72	1/2073	6	0.74	
					2005	148458	1039		185	859	75	1/1979	7	0.65	
					2006	150814	1178		209	976	78	1/2038	6	0.73	
						747458	6309	8.4			392	1/1907	6	0.79	
Kentucky	RIA 0-96 >96	>25 >20		<5	2002										
					2003										
					2004										
					2005										
					2006										
TOTALS						3,217,296	40,555	12.6			1,688	1/1906	4	1.21	

Region 4 CAH Algorithm and Screening Metrics²

	Method	Wt/Age Criteria	Cut-off	Year	Births	Total +	Total + /1000	S+	B+	Cases	Det. Rate	PPV %	False + %
Michigan final	AutoDelfia TMS 2 nd Tier final	All weights <=12 hrs or <2500 >12 hrs & >2500	>=150 >=110	2004	126789	322		78	244	7	1/18713	2	0.25
				2005	124942	844		322	522	6	1/20284	1	0.67
				2006	123095	694		267	447	3	1/41032	0	0.56
					374826	1860	5.0			16	1/23427	1	0.49
Wisconsin final	AutoDelfia final	>=2200g 1700-2199 <1699	>=86 >=105 >=190	2002	64408	116		18	98	1	1/64408	1	0.18
				2003	68893	134		27	107	4	1/17223	3	0.19
				2004	68472	72		12	60	2	1/34236	2	0.50
				2005	68606	349		62	287	5	1/13721	1	0.50
				2006	68739	277		46	231	2	1/34370	2	0.40
	339118	948	2.8			14	1/24223	1	0.28				
Minnesota final	AutoDelfia TMS 2 nd tier final	>=2200g 1600-2199 1099-1599 >1099	>=65 >=112 >=146 >=175	2002	68064	419				5	1/13613	1	0.61
				2003	69999	340				1	1/69999	0	0.48
				2004	70259	162				3	1/23419	2	0.23
				2005	71058	48				3	1/23686	6	0.06
				2006	73473	47				4	1/18363	9	0.06
	352853	1016	2.9			16	1/22053	2	0.28				
Illinois final	AutoDelfia final	Term Upper 0.5% Outside 0.5% Premature: <2000g or <=36 wks.	>=48 >=60 >=100	2003	179082	1188		166	1022	6	1/29847	1	0.66
				2004	177417	933		164	769	7	1/25345	1	0.52
				2005	176089	1534		350	1184	10	1/17609	1	0.87
				2006	174975	2212		475	1737	5	1/34995	0	1.26
	707563	5867	8.3			28	1/25270	0	0.83				
Indiana final	AutoDelfia final	>2500g 1500-2499 <1500	>=50 >=90 >=135	2002	85506	530		8	525	3	1/28502	1	.062
				2003	87115	496		16	480	6	1/14519	1	0.56
				2004	85923	268		6	262	3	1/28641	1	0.31
				2005	85570	1044		23	1021	5	1/17114	0	1.21
				2006	89786	728		21	727	2	1/44893	0	0.81
	433900	3066	7.1			19	1/22837	1	0.70				
Ohio	AutoDelfia final	<1500g 1501-2000 2001-2500 >2500	>250 >130 >100 >90	2003	84973	238				4	1/21243	2	0.28
				2004	149269	201				6	1/24848	3	0.13
				2005	148458	812				10	1/14846	1	0.54
				2006	150814	1102				10	1/15081	1	0.72
	533514	2353	4.4			30	1/17784	1	0.44				
Kentucky	AutoDelfia TMS 2 nd tier	<1500g 1500-2500 >2500	<90 <70 <50										
TOTAL					2,741,774	15,110	5.5			123	1/22291	1	0.55

¹ Based on 5/2008 data from NNSGRC and corrected by email and telephone update from states (5/14/08-Illinois is in process of providing an update)

² Based on 5/2007 data from NNSGRC and corrected by email and telephone update from states (5/14/08-Illinois is in process of providing an update)