Board of Public Health Meeting

June 12, 2012



New Board Member

COL Brent Bracewell



Board Member Introduction

Robert S. Harshman, M.D.



Commissioner's Update

Brenda Fitzgerald, MD



Georgia Newborn Screening Laboratory -Overview



Presentation to: Board of Public Health

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Presented by: Arthur Hagar, PhD - GPHL Director for Chemistry/Hematology Elizabeth A. Franko, DrPH - GPHL Director

Legal Aspects

• OCGA 31-12-6 & 31-12-7

Requires that every live-born infant in Georgia be screened

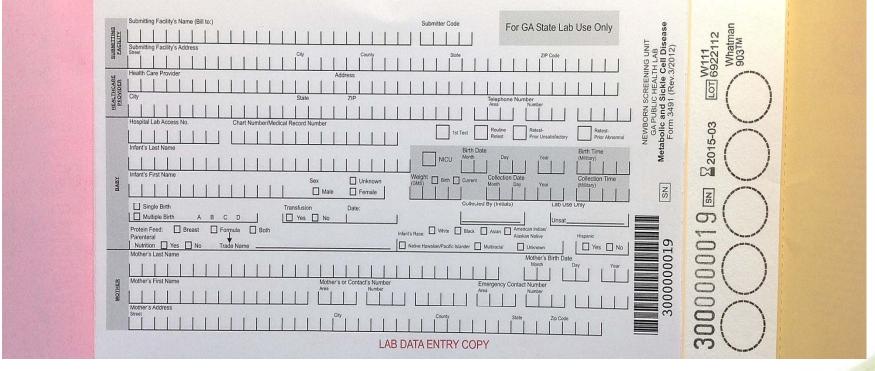
Hospitals collect specimen prior to discharge

- ➢Specimen sent to GPHL
- Analyzed for 28 disorders
 - Hearing screening performed in hospital



- Dried blood spot specimen
- Filter paper attached to form for collecting demographic information
 FDA-licensed Medical Collection Device
- Overnight delivery from hospital to GPHL

NBS Submission Form



FY2011 NBS Workload

- Specimens 148,963
- Examinations 6,859,281
- QC 219,566

Pre-Analytical:

- Laboratory Services & Supply
 - NBS specimens received throughout the day
 - The "Outfit Room" distributes blood collection forms and preaddressed mailers to major hospitals quarterly, others upon request.
 - Orders and/or receives more than \$3.6 million of laboratory supplies annually for NBS.

Pre-Analytical (Continued):

- Central Accessioning
 - Specimens are received, stamped with date received, verified for acceptability and prepared for data entry and laboratory testing.
 - Dried blood spot specimens are delivered to NBS testing laboratory
 - Data forms are separated and sent to Data Entry Unit to be entered the same day if received prior to cutoff time.

Pre-Analytical (Continued):

- Data Entry
 - Demographic Information is entered into the Laboratory Information Management System (LIMS)
 - Same day if received by cutoff time.
 - Next day if received after cutoff.
 - Forms are filed and stored, arranged for easy retrieval when necessary.

Disorders

- Endocrine
 - Congenital Hypothyroidism
 - Congenital Adrenal Hyperplasia (CAH)
- Hematological
 - Sickle Cell Disease
 - Sickle Cell / C Disease
 - Sickle Cell / β-Thalassemia

- Cystic Fibrosis
- Metabolic
 - Galactosemia
 - Biotinidase Deficiency
 - ➤ Amino Acidopathies (6)
 - > Organic Acidemias (9)
 - Fatty Acid β-Oxidation
 Defects (5)

Post-Analytical:

- Reports & Records
 - Laboratory Result Reports: provided to hospital and health care provider
 - Customer Service
 - Duplicate Reports
 - Records Research
- Reports Available via Web Portal

Follow-up of Presumptive Positives

- Endocrine, CF, Metabolic
 Emory Dept of Human Genetics
- Hematological
 - DPH Newborn Screening Program
 - ➢ Georgia Health Sciences University
 - Sickle Cell Foundation
- Criticals Same-Day Phone and Fax

Incidences

- CH = 1:4000
- CAH = 1:20,000
- Hb SS = 1:1800
 ➤ AA = 1:400
- Hb SC = 1:25,000
- Hb S/β Thal = 1:50,000
- CF = 1:5000

- Galactosemia = 1:50,000
- Biotinidase = 1:60,000
- Amino Acidopathies = 1:10,000
- Organic Acidemias = 1:10,000
- Fatty Acid Oxidation = 1:15,000

2011 Confirmed Case Summary

- Endocrine Disorders: 46
- Cystic Fibrosis: 14
- Metabolic: 23
- Amino Acidopathies: 5
- Organic Acidemias: 5
- Fatty Acid Oxidation Disorders: 9
- Total = 102 (1:1324)

Theoretical = 1:1250

New Disorders

- HRSA advisory committee makes recommendations
- Current Recommendations
 Severe Combined Immune Deficiency (SCID)
 Congenital Cyanotic Heart Defect (CCHD)
 Non-laboratory screening by pulse oximetry

Data Entry/Reports & Records Staff



Newborn Screening Lab Staff



District Perspective on Accreditation

Lawton C. Davis, M.D. James C. Howgate II, MPH



Resolution on Accreditation



Board of Public Health Meeting

Next Meeting: July 10, 2012, 1:00 PM

To be added to the notification list, send an e-mail to Bob Shaw – rmshaw@dhr.state.ga.us