Timeliness in NBS: The Iowa Perspective

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Presented to the Advisory Committee on Heritable Disorders in Newborns and Children
May 9, 2018
Facts

• Babies are born **every day**
• **Any baby** can be born on any day with a disorder not recognized at birth
• Some of these conditions will be **time-critical** (at risk of a catastrophic event which can result in sudden disability and even death)
Therefore

Unless appropriate structures and processes are in place to treat everyday the same, there will be disparities based on the particular day of the week a baby is born.
Iowa Response

Since babies are born everyday
In Iowa the following happens everyday:

• Specimens are collected everyday
• Same day delivery of specimens to lab everyday
• Specimens are received by the lab and tested everyday
• Results are reported everyday to Short Term Follow-Up (STFU)
• PCP’s are contacted everyday by STFU with recommendations to enable appropriate interventions to avoid or minimize harm
How?

• Same day courier service provided 7 days/wk, 365 days/yr
  – Specimens picked up across Iowa **everyday**
  – Specimens delivered to the laboratory in evening **same day**

• Lab open 20 hours/day, 7 days/wk, 365 days/yr
  – Nightshift begin testing the **same day** specimens are delivered and continue through the night
  – Dayshift finishes testing and reports abnormalities **that day**

• STFU scheduled so that recommendations for abnormal results for time-critical conditions can be provided to PCP’s **everyday**
But, “How” is not enough!

- You need the “Why?” -

• We can have great structures in place
• But, unless all participants in the NBS system know about the resources and understand “the Why?”, the full potential benefit is not realized.
• It is NOT enough to TELL them what to do; they must understand WHY what they are doing is critical to the Outcome
Result

Each baby receives the same opportunity for benefit regardless of the day of the week they were born.
Distribution of Births by Day of Week

- **Post**
- **Pre**

<table>
<thead>
<tr>
<th>Day of Birth</th>
<th>Percent of Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun</td>
<td>10%</td>
</tr>
<tr>
<td>Mon</td>
<td>15%</td>
</tr>
<tr>
<td>Tue</td>
<td>15%</td>
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<tr>
<td>Wed</td>
<td>15%</td>
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<tr>
<td>Thu</td>
<td>15%</td>
</tr>
<tr>
<td>Fri</td>
<td>20%</td>
</tr>
<tr>
<td>Sat</td>
<td>30%</td>
</tr>
</tbody>
</table>

Percent of Births ranges from 0% to 40%.
Median Hours: Birth to Actionable Result

![Median Hours Chart]

- **Post**
- **Pre**
Annual Relative Population Risk

Modeled on 40,000 Births

Exposed Risk in Hours (Birth to Actionable Result)

Day of Birth

Post
Pre
Disparity of Risk Removed

Modeled on 40,000 Births

Exposed Risk in Hours (Birth to Actionable Result)

Day of Birth

Percent of Births

Day of Birth
Time Critical Conditions Within 5 Days of Life

- **Time from Birth to MSMS Result: Pre 365**
  - 5 days from birth

- **Time from Birth to MSMS Result: Post 365**
  - 5 days from birth
All Results Reported Within 7 Days of Life
NewSTEPs 360 Birth to Reporting Time Critical Results Run Chart
Percent of specimens with time critical results reported on ≤Day 5 after birth
Acknowledgements

• Kimberly Piper, Executive Director, Center for Congenital and Inherited Disorders, Iowa Department of Public Health
• Ron Hardy, Central Delivery Service of Iowa
  – phone: 515-289-9990
  – email: ronh@cdsofiowa.com
• Mike Ramirez, Supervisor NBS lab, State Hygienic Laboratory at The University of Iowa
• Carol Johnson, Supervisor STFU, University of Iowa Hospitals and Clinics
Thank You!

Questions?

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