Ad-Hoc Workgroup: Interpreting Newborn Screening Results Updates

Mei Baker, MD 4/24/2019

Ad-Hoc Workgroup Members

- ▶ Mei Baker, Chair
- ▶ Cindy Powell
- Scott Shone
- ▶ Beth Tarini
- ► Sue Berry
- Susan Tanksley
- ▶ Natasha Bonhomme
- Debra Freedenberg
- ▶ Amy Gaviglio
- ▶ Joyce Graff
- ▶ Jeremy Penn
- ► Kyle Brothers

Approach

- ▶ Report to the Committee
- ▶ Publication in Peer Reviewed Journal
- ► Slide deck or other tools for clinicians

Report Structure

- ▶ Part one: Introduction
- ▶ Part two: Current Practice
- ► Part three: Discussion and Suggestions/Recommendations

Part One-Introduction

► Rationale and targeted audience (family focus)

- > The transparency of NBS's benefit and limitation is needed for health providers/organizations, parents, and public to set a realistic expectation.
- Consistent terminology is needed for health providers/organizations, parents, and public to understand what NBS is and is not

► Knowledge gap and unattainable expectations

- ▶ General medical screening concept
- ► Additional unique NBS aspects (newborns, time critical conditions, technologies, etc.)
- ▶ Difference between screening and diagnosis
- ▶ Terminology clarification

Part One—Introduction

- ► Screening test versus diagnostic test
 references in literature; MOC from the Midwest
 Genetics Network; CLSI documents; CDC/APHL QA
 committee documents
- ► Individual versus population (individual circumstance)

Part Two—Current Practice

- ► Risk assessment evidence
 - ► Results are threshold based and categorical
 - ► Results interpretation (risk for..., indication of...)
 - ► Recommendation (further confirmatory testing and clinical assessment)

Part Two—Current Practice

- Report categories with emphasis on the associated actions
 - ► Further action needed, with recommendation of confirmatory testing (screening positive; abnormal screening; out-of-range results)
 - ► Further action needed, with recommendation to repeat NBS (possible screening positive; possible abnormal screening; borderline results)
 - No further action needed unless clinically indicated (screening negative; normal screening; in-range results)
 - ▶ Unsatisfactory specimens with recommendation to collect new NBS specimen (inconclusive results, undermined results)
 - Results pending in two screening protocol

Part Three—Discussion and Recommendations/Suggestions

- ► Make NBS risk assessment more clear
 - More explicit "risk assessment" language and methods for interpreting NBS results
 - > Add on NBS interpretation for "normal NBS results"
- ► Terminology clarification and consistency
- ► Strategies for communicating NBS results to families
- ► Strategies for improving NBS performance

Timelines

- ► ACHDNC meeting on March 22, 2019
 - ▶ Draft work plan Committee feedback
- ► ACHDNC meeting on Apr 23-24, 2019
 - ▶ Outline of the report and *dissemination plan* Committee feedback
- ► ACHDNC meeting on Aug 1-2, 2019
 - Draft report and dissemination plan Committee feedback
- ► ACHDNC meeting on Nov 7-8, 2019
 - ► Charge Final report, initiate dissemination activities, and manuscript preparation
- ► ACHDNC meeting on Feb 13-14, 2020
 - Report on dissemination activities and manuscript submission