

Adding New Disorders to State Newborn Screening Panels

The Minnesota Process



Newborn screening is a state-based public health service that identifies babies at risk for serious, rare, but treatable disorders so that they may be rapidly diagnosed and treated. As testing technology and clinical treatment advances, new disorders are being added to state newborn screening panels more frequently. In many states, legislators are being asked to formulate a process for adding new disorders to the state panel. Recently, legislative action has been substituted for other processes for adding new conditions to state authorized newborn screening panels. Such action, while often well-intended, has the potential to re-direct clinical, scientific and fiscal priorities away from time-tested strategies for adding new NBS conditions. This fact sheet presents guidelines for legislators and other decision makers charged with shaping this process.

Newborn screening is not new. It began in the early 1960s with screening for a single condition, phenylketonuria (PKU). The success of PKU screening, which prevented severe intellectual disability, paved the way for screening of other treatable disorders. Today most states screen for more than 30 disorders, and children who would have died or suffered life-long disability now lead healthy, normal lives. In the United States, newborn screening programs identify about 40 babies with a newborn screening disorder each day.

The Newborn Screening Process

Newborn screening is a complex process, not just a test. It begins with collection of a few drops of a baby's blood followed by laboratory testing and follow-up care for babies identified with a disorder. Parent education is essential to the process at all stages.

States rely on technical, clinical and community advisory groups to evaluate the addition of new newborn screening tests for particular disorders. These deliberations are public, with opportunity for input from health care providers, medical experts, parents, advocates, legislators and public health programs.

Most states have state advisory committees that review recommendations by stakeholder groups and compare them with recommendations by the Department of Health and Human Services Advisory Committee on Heritable Disorders in Newborn and Children. This federal advisory committee recommends new disorders added to the national Recommended Uniform Screening Panel (RUSP). Some states follow the RUSP in adding new disorders to state panels, some states consider the RUSP as one factor in decision making, while others take a more active and state-centered role in decision-making.

In 2015, the American Society of Human Genetics recommended that conditions be added to state newborn screening panels only after a state or federal review process evaluating the benefits and harms, impacts on systems of care, resources and capacity, and input from relevant stakeholders.¹

¹ Botkin, J., Belmont, J., Berg, J., Berkman, B., Bombard, Y., Holm, I., Levy, H., Ormond, K., Saal, H., Spinner, N., Wilfond, B., & McInerney, J. (2015) ASHG Position Statement: Points to Consider: Ethical, Legal, and Psychosocial Implications of Genetic Testing in Children and Adolescents. *The American Journal of Human Genetics* 97, 6-21.

Key Considerations

Both federal and state newborn screening advisory committees evaluate addition of a new disorder based on the following key considerations:

1. Screening is needed to identify all babies who may need treatment
2. There is a significant risk of illness, disability, or death if babies are not treated promptly,
3. Effective treatment is available
4. Treatment is more beneficial in the newborn period than later
5. Resources and access to treatment and counseling are widely available
6. The benefits to babies and to society outweigh the risks and burdens of screening and treatment.

Why a Defined Process?

All state stakeholders benefit from a clearly articulated review and approval process for the addition of new disorders to state newborn screening panels. A defined process ensures consistency, fairness and a full review of the many complex and highly technical factors involved in making a decision that may mean life or death for some infants.

The section below outlines Minnesota's process for adding new disorders to a state newborn screening panel. It is vital to include key contacts who can correctly answer questions from state policy makers, parent advocacy groups and others about nomination, evaluation and selection of new disorders. These contacts should be able to explain the rationale for past state and federal decisions concerning the addition of new disorders to state and federal newborn screening panels.

Minnesota's Newborn Screening Process

In Minnesota, disorders are added to the Newborn Screening Panel through the Commissioner of Health. Per state statute (MS 144.125, subd. 2), the Commissioner may add disorders to the state's screening panel after considering:

- The adequacy of analytical methods to detect the disorder,
- The severity of the medical disorders caused by the disorder and
- The ability to effectively treat those associated medical disorders.

The Commissioner also must consider the recommendation of the state's Advisory Committee on Heritable and Congenital Disorders. Without its recommendation, the Commissioner may not add a disorder to the screening panel. Members of Minnesota's advisory committee include:

- Parents of affected children,
- Advocacy groups,
- Health care providers,
- Hospital representatives and
- Other medical, education and ethics experts.

For further information, contact:

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