

my Newborn

Neonatal genomic screening that studies childhood onset
actionable diseases



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Up to 9.4%⁽¹⁾ of newborns can present genetic variants related to childhood-onset diseases

Knowing this risk is key to intervene and personalize the newborn's management

What is myNewborn?

The test allows knowing the newborn risk to develop around **390 diseases with onset in the first years of life**. The test complements the heel prick test, improving the clinical utility.

What does the test include?

The test analyzes more than **400 genes through Whole Exome Sequencing (WES)**.

What type of diseases are included?

- Highly actionable childhood onset diseases.
- Included in the newborn heel prick test.
- Adult onset diseases that are actionable during childhood.
- Common although not treatable diseases, with carrier frequency higher than 1/100.

Why prescribe myNewborn?

myNewborn entails an expansion of the conventional neonatal biochemical screening test, increasing the metabolic and genetic diseases detected, which allows nutritional intervention and other procedures during the childhood, improving the newborn's health.

Who is it intended for?

- myNewborn is for any newborn with no apparent symptoms of disease.
- Cases of adoption or gamete donation.*

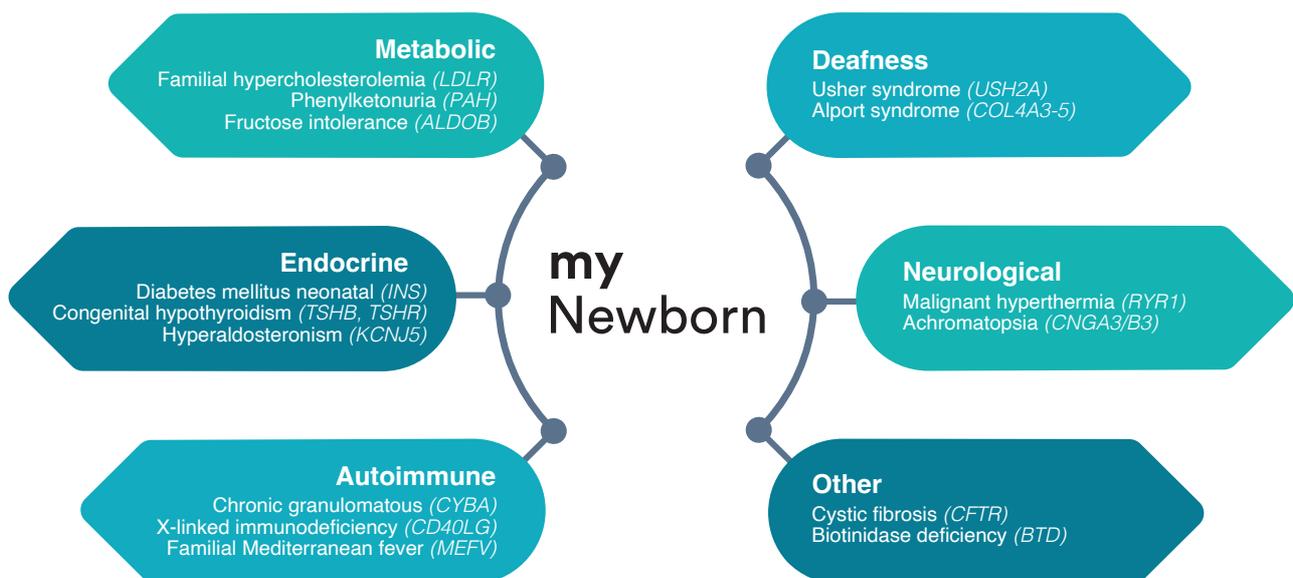
Counseling service for the specialist

Veritas offers a distinguishing service providing counseling to the physician for patient results interpretation, if it is needed.

Which sample type is needed?

Blood, cord blood or saliva in a specific kit provided by Veritas.

* Although the test is indicated for any newborn regardless the family history, having a family history of a specific disease may increase the risk in the offspring, and in adoption or gamete donation this information is not available.



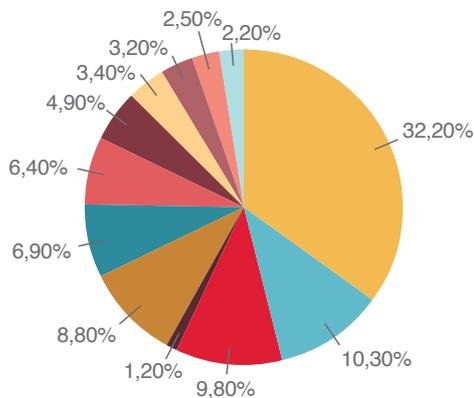
1. Ceyhan-Birsoy, Ozge, et al. "Interpretation of Genomic Sequencing Results in Healthy and Ill Newborns: Results from the BabySeq Project." *The American Journal of Human Genetics* 104.1 (2019): 76-93.

myNewborn clinical application examples

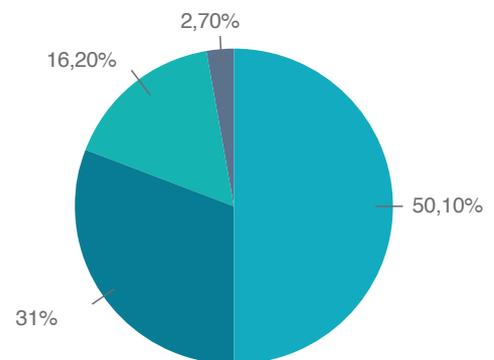
PATHOLOGY/GENE	SYMPTOMATOLOGY	PATIENT MANAGEMENT
Glucose-6-Phosphate Dehydrogenase Deficiency (G6PD)	<i>Hemolytic anemia when beans, sulfites, specific drugs or food colorings are consumed.</i>	Dietary modifications and avoid specific drugs → Child without symptomatology
Familial hypercholesterolemia (LDLR)	<i>Early cardiovascular (CV) disease.</i>	Dietary modification + medication → Prevention of CV disease
Abetalipoproteinemia (MTTP)	<i>Fat absorption inability that alters the nervous system development.</i>	Low-fat diet + vitamin supplements → Prevention of neuropathy and ataxia

Types of diseases included in myNewborn

Percentage of diseases included in **myNewborn** by category



Classification of the **myNewborn** pathologies by clinical management



- | | | | |
|--|---|--|---|
| ■ Metabolic | ■ Hematologic | ■ Deafness | ■ Preventive management |
| ■ Syndromic | ■ Endocrine | ■ Immunological | ■ Early management |
| ■ Pulmonary | ■ Neurological | ■ Cancer | ■ Dietary management |
| ■ Musculoskeletal | ■ Cardiovascular | ■ Urogenital | ■ Other type of intervention |

Whole exome technical information

- Veritas whole exome sequencing has an optimized design that improves the coverage for a more homogeneous sequencing of the exome.
- Whole exome sequencing with 100x average coverage, sequencing more than 99% of the genes of interest at $\geq 20x$.
- Veritas has a team of expert curators who perform the interpretation based on the most up-to-date scientific knowledge, with a specialized software developed for a detailed variant classification.

Newborn Screening Procedure



References

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- » Ceyhan-Birsoy, Ozge, et al. "Interpretation of Genomic Sequencing Results in Healthy and Ill Newborns: Results from the BabySeq Project." *The American Journal of Human Genetics* 104.1 (2019): 76-93.
- » Holm, Ingrid A., et al. "The BabySeq project: implementing genomic sequencing in newborns." *BMC pediatrics* 18.1 (2018): 225.

About Veritas

Veritas Genetics, a *LetsGetChecked* company, is one of the world leaders in advanced genetic sequencing and clinical interpretation of the exome and whole genome, driving the transition to personalized and preventive medicine.

Using state-of-the-art technologies and the highest safety standards, Veritas Genetics helps individuals, healthcare professionals and institutions worldwide to understand and anticipate genetic risks, enabling more informed and proactive health decisions.

With a focus on innovation and accessibility, Veritas Genetics transforms the way we understand and care for health at every stage of life.



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