# Intracranial Hemorrhage (ICH)

Patient Information Series - What you should know, what you should ask.

### What is Intracranial Hemorrhage?

Intracranial hemorrhage (ICH) is the medical term for bleeding within the brain or between the brain and its surrounding membranes. When diagnosed before birth, this condition is referred to as prenatal ICH. This type of bleeding can vary in severity and may occur in different areas of the brain, at different times in pregnancy.

### What Causes Intracranial Hemorrhage?

The causes of prenatal ICH can vary and sometimes the exact cause may not be known.

However, some possible causes include:

Genetic conditions: Some inherited disorders can increase the risk of ICH.

Trauma: An injury to the abdomen during pregnancy.

Blood disorders: Conditions such as neonatal alloimmune thrombocytopenia (NAIT), which is caused by maternal antibodies raised against alloantigens carried on fetal platelets, or hemophilia, which affects how blood clots.

Infections: Certain infections during pregnancy can lead to complications including ICH. Vascular malformations: Abnormalities in the blood vessels of the baby's brain that may rupture.

#### **Should I Have More Tests Done?**

Upon diagnosing ICH during a routine ultrasound, your doctor might recommend additional tests to better understand the condition. These could include various blood tests, a detailed ultrasound, possibly performed by a specialist in maternal-fetal medicine or neurosonography, which is ultrasound of the fetal brain and central nervous system, to get a clearer picture of the brain structure and the hemorrhage. You might also be referred to fetal MRI, which can provide a more detailed scan to assess the brain's anatomy and the extent of bleeding. You might also be referred to genetic counseling and testing, if a genetic cause is suspected. These tests help in planning the management of pregnancy and preparing for any necessary interventions after birth.

### What Are the Things to Watch for During My Pregnancy?

Your pregnancy will require more careful monitoring, so follow your caregivers' instructions. Here are some specific things to watch for: Changes in fetal movement, such as a decrease or significant changes in how the baby moves might need immediate attention. If you experience symptoms of preterm labor, such as regular contractions or abdominal pain, or if you



# Intracranial Hemorrhage (ICH)

Patient Information Series - What you should know, what you should ask.

experience changes in your own health, such as severe headache, vision changes, or swelling – all of these could be significant and should be reported to your healthcare provider.

# What Does It Mean for My Baby After It is Born?

The impact of prenatal ICH on a baby can vary. Mild cases may not show any symptoms after birth. Severe cases, however, can lead to neurological issues, developmental delays, or physical disabilities. After birth, your baby may be referred to further imaging studies and be monitored by pediatric specialists to address any arising needs.

# Will It Happen Again?

The risk of recurrence in a future pregnancy depends on the underlying cause of the ICH. If the cause is genetic or due to a maternal condition, the risk might be higher. Your healthcare provider can offer more personalized information based on your situation and might refer you to a genetic counselor for additional testing.

### What other questions should I ask?

- What specific findings were seen on the ultrasound or MRI?
- How will this condition be monitored throughout the remainder of my pregnancy?
- What specialists should be involved in my care and my baby's care after birth?
- Are there specific symptoms I should immediately report during my pregnancy?
- What support services are available for families dealing with prenatal diagnoses of ICH?

Last updated May 2024

