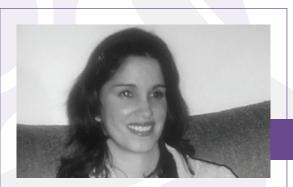
# CLINICIANS, INSURANCE, CASE MANAGEMENT TOOLKIT



amplify, educate, advocate



Maria was 34 years old when she died.

Together with our partners, we strive to promote standardized treatment and assessment for improved outcomes through policy and advocacy. Pregnant women suffering with HG and related complications deserve respectful, appropriate, effective care.

# EDUCATIONAL AND STATS/DATA

- » HG is defined as a potentially lifethreatening pregnancy disease often causing weight loss, malnutrition, dehydration, and debility due to severe nausea and/or vomiting, and often contributes to long-term health issues for mother and babies.
- » Learn more about HG: https://www. youtube.com/watch?v=c\_CqasYn7rE
- » According to recent research, 10% to over 22% of pregnant women take antiemetics for nausea and vomiting of pregnancy, yet only 3% are properly diagnosed with HG.
- » HG is the leading cause for hospital and emergency visits in early pregnancy, and the second leading cause overall, costing over \$3 billion annually plus outpatient care and therapeutics.

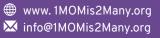
Hyperemesis Gravidarum affects 3-10% of women, or 6+ million women globally, and contributes to numerous serious pregnancy complications, including death of mothers and babies.

1 MOM is 2 Many works to eradicate preventable maternal and fetal morbidities and mortality as a result of HG.

- » HG accounts for over 425,000 emergency and inpatient visits compared to 149,000 for preeclampsia, 18,000 for sepsis, and 8,000 for cardiomyopathy (HCUP 2014).
- » 1 in 3 babies does not make it to term due to miscarriage, stillbirth, unwanted termination, and premature delivery.
- » Maternal complications can include gastrointestinal and esophageal damage, liver and kidney failure, preterm birth, placental abruption, sepsis, preeclampsia, embolism, hemorrhage, PTSD, and PMADs.
- » Fetal complications can include restricted growth, neurodevelopmental delays, autism spectrum disorders, as well as cardiometabolic disease and mental health issues in adulthood.

When we talk about Maria, the women that were on the HER forums when she died still cry. That it could have been any of us is true, but more so, the tears are now filled with anger as well as grief. Maria's death was preventable."







Our family will forever feel incomplete without Maria and her children. It's tragic. If only we had been given information about possible pregnancy complications or she had been given prenatal vitamins with thiamin in the hospital daily, we may not have lost the three of them."

# RESEARCH

Since 2000, the HER Foundation has been developing tools, collaborating on over two dozen HG research studies, and helping millions of families.

For centuries Hyperemesis gravidarum (HG) was thought to be related to physiological causes such as toxins, ulcerations, or infection. In the 20th century, HG became erroneously attributed to a psychological condition.

Limited research and outdated theories have fostered this belief for over a century, resulting in unnecessary suffering and financial loss for too many women and their families, not to mention the short- and long-term adverse impact on the health of both mother and baby.

The HER Foundation's groundbreaking research with UCLA and USC on the genetic foundations of HG continues to change the way women are treated.

However, our work isn't complete – more research is needed on the treatments and tools that will improve the care of the outcomes of mothers and their children.

The HER Foundation, in partnership with UCLA and USC, continues to lead this critical research into many additional aspects of Hyperemesis Gravidarum, including:

- » genes involved in nausea/vomiting of pregnancy,
- » impact of nutritional supplementation,
- » benefits of the HG Care App,
- » accuracy and application of the HELP Score.

# **PSYCHOSOCIAL**

In addition to the physical complications of HG, 82.8% of women reported that HG caused negative psychosocial changes, consisting of (1) socioeconomic changes, for example, job loss or difficulties, (2) attitude changes including fear regarding future pregnancies and (3) psychiatric sequelae, for example, feelings of depression and anxiety, which for some continued postpartum. (Poursharif et al. 2008)

# **GENETICS OF HG**

HER's genetic research shows that HG and cachexia are biologically related. GDF15 and IGFBP proteins are involved in both conditions. Cachexia is a condition characterized by the same symptoms as HG, nausea and vomiting, weight loss, muscle wasting, and extreme debility. Cachexia is the cause of death in 20% of cancer patients. These genetics findings are a starting point to screening for HG and finding a cure. Read the full article: www.nature.com/articles/s41467-018-03258-0

HG is genetic: Validation of the GDF15 receptor gene GFRAL as a genetic risk factor for HG provides further support that the GDF15-GFRAL pathway is involved in disease etiology. (Fejzo et al. 2018)

# NEURODEVELOPMENTAL

Children exposed in utero to HG had over a 3-fold increase in odds of neurodevelopmental disorders including attention, anxiety, sensory, sleep difficulty, and social development delay/social anxiety. There was also a significant increase in Autism Spectrum Disorder (ASD). (Fejzo et al. 2018)

To view HER's latest collaborative HG research visit: www.hyperemesis.org/research/.







# TREATMENT, PREVENTION, EDUCATION

Proactive, effective treatment of HG can reduce HG severity and prevent additional associated conditions, such as Wernicke's Encephalopathy.

HG treatment involves multiple medications, vitamins – like thiamine, and often IV fluids and/or IV or gastric tube feedings.

The HER Foundation advances current guidelines by developing standardized assessment tools, HG treatment protocols, and a comprehensive treatment algorithm to empower clinicians in provision of high-quality care and prevention of associated complications. Protocols are informed by ACOG guidelines and 20 years of experience I remember grieving, even though I had never known her, because she and her babies were deaths that could have been avoided had the staff at the hospital been either educated or taken the time and not dismissed an HG mom so quickly."

- Loralie

supporting HG patients and clinicians.

View the HG Treatment Algorithm and Protocols here: www.hyperemesis.org/tools

# RECOMMENDATIONS FOR HEALTH SYSTEMS AND PROVIDERS

# Advocate for comprehensive, universal care

- » Advocate for funding of research into validating effective management protocols for HG.
- » Development of HG management bundle: https://safehealthcareforeverywoman. org/patient-safety-bundles/
- » Improve HG information: HG not currently listed as a severe maternal morbidity – although Wernicke's is a complication directly related to HG that qualifies as a "neurological dysfunction".
- » Collaborate with pharmaceutical companies on drug formularies to produce medications that safely and effectively treat HG and prevent comorbidities.

### Amplify patient voices

» Adopt effective, standardized HG protocols into Medicaid Managed Care evidence-based clinical practice

- quidelines.
- » Evaluate nutritional requirements during HG and appropriate interventions to optimize maternal-fetal outcomes.
- » Promote and invest in programs to educate providers on HG and associated conditions.

# Educate others about available HG resources

- » Involve HER Foundation HG experts in policy discussions, planning and research.
- » Utilize HER Foundation Resources
  - Share HER Foundation brochures and Assess & Treat Packets with caregivers and clinicians.
  - Share support and survival information with colleagues and patients.
  - Use the HELP Score, HG Care app, and Assess & Treat Packets, and HER Clinical Tools.







# RESOURCES

The HER Foundation empowers those managing HG with **information** and **support** to minimize suffering, long-term health complications and pregnancy loss.

As the leader in HG research, the HER Foundation offers a wide range of resources to assist providers and insurers as they provide high-quality care to patients.

## Resources include:

- » Assess and Treat Packet for Clinicians
- » Treatment Algorithm
- » HELP (HyperEmesis Level) Prediction Score (Spanish version)
- » Clinician Protocol

- » Patient Protocol
- » Assessment Forms
- » HG Care App

Resources are available for download for personal and professional use. Additional information can be found on the HER website at: www.hyperemesis.org.

Note, please do not change the content and do retain the HER Foundation logos for copyright.



# LEARN MORE ABOUT 1 MOM IS 2 MANY

# Mission

The HER Foundation launched 1 MOM is 2 Many to drive effective maternal health policy forward to meet the needs of patients and ignite progress through education, collaborative advocacy, and the amplification of women's voices.

### What we'll do

We educate on the long term, potentially life threatening complications associated with HG.

We advocate for policy to implement proactive, standardized interventions to minimize the suffering and complications related to HG.

We amplify the voices of women and families who suffer from preventable, negative outcomes of HG to increase awareness.

# What we will change

Through development of comprehensive and standardized assessments, guidelines,

and treatment protocols, mothers and babies across the globe will receive the care they need in order to eradicate preventable maternal and fetal morbidity and mortality.

# Goals

We expect: medical care that protects women and babies: Standardized assessment, Proactive intervention, Comprehensive treatment, Effective care, Ongoing follow up.

# We offer: resources and expertise:

Evidence-based tools, Peer reviewed research, Analysis of literature, Innovative solutions, Experienced leadership.

We will do: effect change at the individual and society levels: Education, Amplification, Collaboration, Advocacy, Leadership.

amplify, educate, advocate www. 1MOMis2Many.org





