# HYPEREMESIS GRAVIDARUM INITIATIVE PROJECT

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## ACKNOWLEDGEMENT OF COUNTRY



I would like to acknowledge the original custodians of this land and pay my respects to the Elders, past, present and future, for they hold the memories, the traditions, the culture and the hopes of Aboriginal Australia. Today we are meeting on the land of the Darkinjung people.



### LEARNING OUTCOMES

- Understanding the HG Project aims
- Understanding the characteristics of HG
- Understanding the impact of HG
- Understanding the PUQE-24 scoring tool
- Understanding HG treatment



#### HG INITIATIVE AIMS

- Increase awareness, understanding & attitudes
- Streamline new pathways to care
- Improve integration of hospital, community, & primary health care
- Identify, assess, and manage HG in line with best practice
- Increase research & evaluate care



#### HEAR THIS:



- Severe nausea and vomiting
- Strongly limits daily activities
- Main cause of hospitalisation in the first half of pregnancy
- Incidence of 1-3%
- Aetiology is unclear –likely multifactorial
- No universally accepted definition



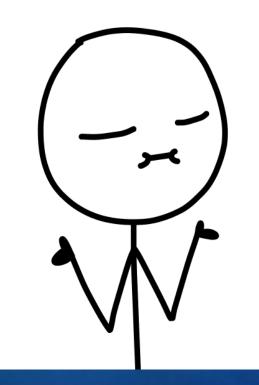
### GAINING CLARITY



- Absence of consistent clinical guidelines
- Inequity of access
- Clinician discomfort with medication
- Limited education
- Poor understanding of mental health
- Variation in views, beliefs & attitudes



# IN OUR POST PANDEMIC WORLD



# SO WHAT?



THE WHY

...most traumatic time in my life

...I became an empty shell

...so sick, dehydrated and not knowing how to help myself

...I still have PTSD from my Hyperemesis.



...vomiting violently

#### HUMAN COST OF HG

 "Depression, anxiety, PTSD and maternal-fetal attachment have all been studied in relation to HG and it is considered that the true psychological impact of suffering of HG is significantly underestimated" (Mitchell-Jones et al 2017)



## MATERNAL COMPLICATIONS

- Electrolyte disturbance
- Malnutrition and loss of muscle mass
- Mallory Weiss tears
- Vitamin deficiency (Thiamine)
- Dental enamel erosion
- Placental dysfunction
- Altered mental health status and impact on family unit



# NEONATAL COMPLICATIONS



#### • Low birth weight

- SGA
- Prematurity



## BURDEN OF DISEASE

#### 276 ED Presentations 2020

#### 274 ED Presentations 2021

■ Wyong (N=144) ■ Gosford (N=131)

■ Wyong (N= 133) ■ Gosford (N=141)



## DATA INSIGHTS

- Mean wait time of 4.196 hours
- Average length of stay 3 hours 52 minutes
- 3.9% re-presentation rate within 48hours
- Up to 13 presentations to ED within one pregnancy for management of HG





### IDENTIFY

 Ask every woman at every visit between 4-16 weeks gestation about nausea and vomiting of pregnancy





## ASSESS – PUQE-24

#### Motherisk PUQE-24 scoring system

In the last 24 hours, for how long have you felt nauseated or sick to your stomach?	Not at all	1 hour or	2–3 hours	4–6 hours	More than
	(1)	less (2)	(3)	(4)	6 hours (5)
In the last 24 hours have you vomited or thrown up?	7 or more	5–6 times	3–4 times	1–2 times	l did not
	times (5)	(4)	(3)	(2)	throw up (1)
In the last 24 hours how many times have you had retching or dry heaves without bringing anything up?	No time (1)	1–2 times (2)	3–4 times (3)	5–6 times (4)	7 or more times (5)

PUQE-24 score: Mild ≤ 6; Moderate = 7–12; Severe = 13–15.



#### ASSESS

- History
- Physical examination
- Assessment of hydration status
- PUQE-24 score
- Obstetric ultrasound
- Exclusion of differential diagnosis
- Pathology (EUC, LFT, CMP, possibly TSH)
- Mental health assessment

#### Edinburgh Postnatal Depression Scale (EPDS)

Cox JL, Holden JM Sagovsky R (1987) Detection of postnatal depression: development of the 10-item Edinburgh postnatal depression scale. Brit J Psychiatry 150 782-86. Reproduced with permission.

#### Name:

Date

Best Practic.

Guidelin

We would like to know how you have been feeling in the past week. Please indicate which of the following comes closest to how you have been feeling over the past seven days, not just how you feel today. Please tick one circle for each question that comes closest to how you have felt in the **last seven days**.



# PRINCIPLES OF HOLISTIC MANAGEMENT

Prevent teratogenicity



Maintain mental wellbeing Reduce nausea & vomiting



Manage GOR & constipation

Maintain hydration & nutrition



## MANAGE

#### NON-PHARMACOLOGICAL

- Rest
- Diet
- Acupuncture/Acupressure
- Psychosocial support





## MANAGE

#### PHARMACOLOGICAL

- Anti-emetics: herbal/vitamins, prescribed
- Acid suppression
- Laxatives
- Steroids
- Other supplements





# SOMANZ (CURRENT)

# MINISTRY OF HEALTH (FUTURE)

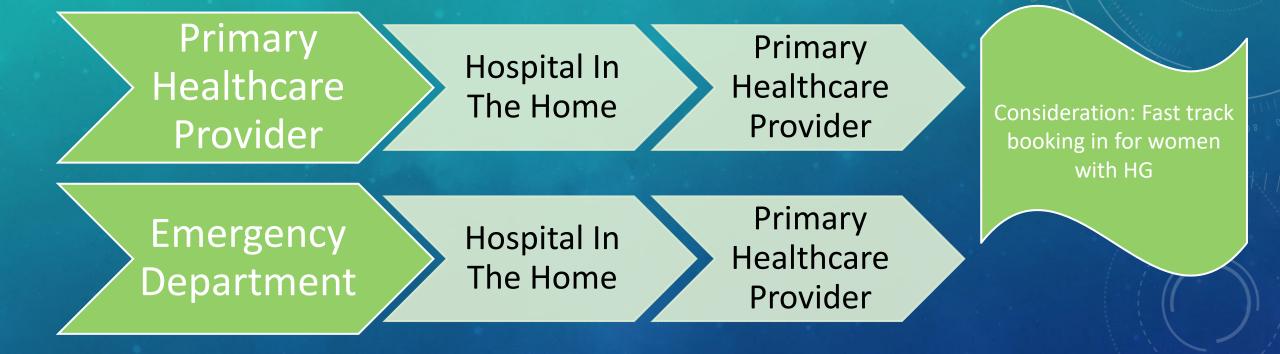


Society of Obstetric Medicine of Australia and New Zealand



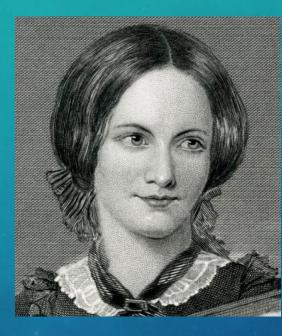
# Health

## NEW (POTENTIAL) PATHWAYS TO CARE





# WHAT DOES THE FUTURE HOLD?



"Let me speak the plain truth – my sufferings are very great –my nights indescribable – sickness with scare a reprieve – I strain until what I vomit is mixed with blood" (Charlotte Bronte 1855).



### WHERE TO FROM HERE?

- Steering committee
- MoH Clinical Guideline published
- Increase clinician awareness and education
- Imbed PUQE-24
- Commence new referral pathways
- Evaluate data









#### REFERENCES

- Christodoulou-Smith, J Gold, J., Romero, R., Goodwin, T., Macgibbon, K., Mullin, P., & Fejzo, M. (2011). Posttraumatic stress symptoms following pregnancy complicated by hyperemesis Gravidarum. *Journal of Maternal, Fetal, Neonatal Medicine*, 24 (11).
- Ebrahimi N, Maltepe C, Bournissen FG et al. Nausea and vomiting of pregnancy: using the 24-hour Pregnancy-Unique Quantification of Emesis (PUQE-24) scale. *JOGC. 2009;31(9)*:803-7.
- Fiaschi L, Nelson-Piercy C, Gibson J, Szatkowski L & Laila J. Adverse Maternal and Birth Outcomes in Women Admitted to Hospital for Hyperemesis Gravidarum: a Population-Based Cohort Study. *Paediatric and Perinatal Epidemiology. 2018, Vol. 32.*
- Havnan, G. C., Truong, M. B., Do, M. H. Women's perspectives on the management and consequences of hyperemesis gravidarum-a descriptive interview study. *Scandinavian Journal of Primary Health Care*. 2019, Vol. 37
- Hyperemesis Gravidarum. Emergency Care Institute, New South Wales. 2020. Accessed 7<sup>th</sup> March 2022, Hyperemesis Gravidarum Emergency Care Institute (nsw.gov.au)
- Lowe, S. A, et al. Guideline for the management of nausea and vomiting in pregnancy and hyperemesis gravidarum. SOMANZ Society of Obstetric Medicine of Australia and New Zealand
- McParlin et al. Treatments for Hyperemesis Gravidarum and Nausea and Vomiting in Pregnancy: A Systematic Review. JAMA. 2016, Vol. 13
- Mitchell-Jones, N., Gallos, I., Farren, J., Tobias, A., Bottomley, C., Bourne, T. (2017). Psychological morbidity associated with hyperemesis Gravidarum: a systematic review and meta-analysis. *BJOG* DOI: 10.1111/1471-0528.14180
- Mothersafe (Accessed 7/4/2022) https://www.seslhd.health.nsw.gov.au/royal-hospital-for-women/servicesclinics/directory/mothersafe



#### REFERENCES

- NSW Health. Identification and management of Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum. 2021. CGXX1234\_123
- Nulman I, Maltepe C, Farine D, Koren GJO. (2015). Neurodevelopment of children after maternal hospitalization for nausea and vomiting of pregnancy. Obstet Gynecol, Vol. 125.
- Poursharif B, Korst LM., MacGibbon KW, Fejzo MS., Romero R, Goodwin TM. (2007). Elective pregnancy termination in a large cohort of women with hyperemesis gravidarum. *Contraception*, *76* (6)pp. 451-5.
- Poursharif B, Korst LM, Fejzo MS, MacGibbon KW, Romero R, Goodwin TM. (2008). The psychosocial burden of hyperemesis gravidarum. *Journal of Perinatology, 28,* 176-81.
- Sheehan, P. (2007). Hyperemesis Gravidarum assessment and management. Australian Family Physician, 36 (9).
- Wang, H., Rolls, E., Du, X., Du., J., Yang., Li, J., Li, F., Cheng, W., Feng, J. (2020). Severe nausea and vomiting in pregnancy: psychiatric and cognitive problems and brain structure in children. *BMC Medicine*, *18* (229). https://doi.org/10.1186/s12916-020-01701-y

