



College of Emergency  
Nurses New Zealand  
Ngā Ringa Ringa Aroha NZNO

# Concurrent Session Two

## Proposal for possible change of management of nausea and vomiting in pregnancy at the 24-Hour Surgery

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CENNZ CONFERENCE 2023



READY TO RESPOND  
KIA MATAARA

CENNZ CONFERENCE 2023  
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# PROPOSAL FOR POSSIBLE CHANGE OF MANAGEMENT OF NAUSEA AND VOMITING IN PREGNANCY AT THE 24-HOUR SURGERY

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ROXY COMAN | EASTCARE HEALTH CENTRE

# How can early treatment improve the outcome of women presenting with Nausea and vomiting in pregnancy (NVP) or HG Hyperemesis Gravidarum (HG)?

## Audit

Search: Maternity (MAT) codes;  
specifically, Nausea & Vomiting in Pregnancy (NVP)  
November 2020-February 2021  
effective practice and need for improvement





# Environmental scan

FOH (Front of House) – initial assessment

BOH (Back of House) – further assessment and treatment; monitoring < 2h

Obs Unit – monitoring > 2h

Operates 24/7

# NVP patient journey at an urgent care facility

NOW : (FOH) Reception → Triage RN → Flow RN (+/- RAT) → Clinician assessment → treatment plan → (BOH or Obs Unit RN) TREATMENT → further observation → Dx home or Hospital.

MY VISION: Reception → Triage RN (NVP pathway) → (BOH or Obs Unit RN) TREATMENT → Clinician assessment → further observation → Dx home or Hospital.

Until treatment received: How many people? How much time?

# Findings:

56% of total NVP breached their triage time target for assessment and treatment

44% of total NVP spent over 4h in the facility

RAT = 9% of the total NVP; 6% were up triaged due to deterioration

p.o. fluids = 37.5% - documented

IVF = 85%

Different antiemetics : Cyclizine 39.7%; Metoclopramide, Ondansetron 22.7%;

# Rationale for introducing nursing pathway proposal

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Worldwide and in New Zealand

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- Advanced early nursing interventions -  
analgesia and NIXR

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- The common effects: ↑ pt. safety and comfort +  
↓ stays overall + ↑ staff satisfaction

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24 H Surgery

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- Long wait times can go up to 4h

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- Early interventions benefit certain patient  
groups, but only 6% of the NVP group.

# Possible pathway limitations

Risk of task orientated approach → RNs and Clinician discussions

RNs non-prescribers → step within pathway for RNs and Clinician discussions regarding antiemetic options

# NVP descriptors

NV = 50-60% prevalence in pregnancy, high social impact

- Early onset 5-6 /40 = NV pregnancy induced
- Main cause is high levels of HCG
- Mild, moderate, severe
- Most severe form is HG = 3% - intractable vomiting, weight loss and electrolyte imbalance

## **Differentials:**

- Onset after 12/40 and /or any associated symptoms e.g. headache, abdominal pain.

## Red flags:

- ↓ LOC ; ↓ or ↑ BSL ↑ BP ( greater than 140/90 mmHg) ; ↑ HR

Abnormal FM and/or FHR (normal range 110-150)

# NVP / HG management

## **Treatment**

- we follow CHP guidelines
- dehydration can worsen the NV, hence start with hydration
- mild – oral hydration and p.o. antiemetics if needed
- moderate – p.o. /i.v. hydration and p.o./i.v. antiemetics
- Severe, HG – i.v.f. and i.v. antiemetics
- after i.v. therapy, trial oral rehydration

## **Women's education**

- enquire women's knowledge on how to manage their NVP/HG
- give health info patient info sheet – Health Info website NVP
- f/up phone calls

# Determine NVP severity – pregnancy unique quantification of emesis (PUQE) -the motherisk 24h PUQE tool

**Question 1:** In the last 24h, how long have you felt nauseated or sick to your stomach?

Scores: 1 (not at all); 2 (1h or less); 3 (2-3h); 4 (4-6h); 5 (more than 6h)

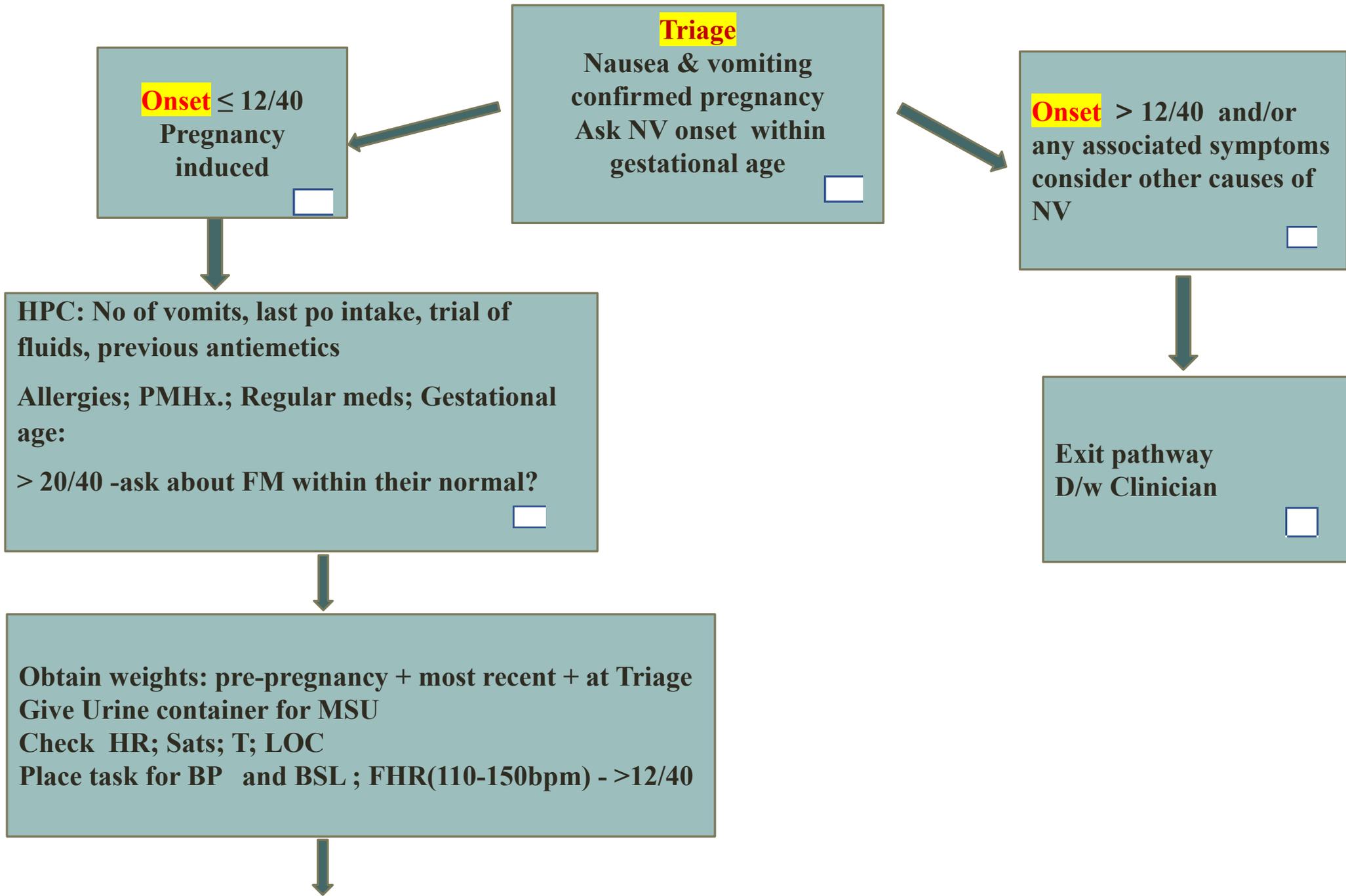
**Question 2:** In the last 24h, have you vomited or thrown up?

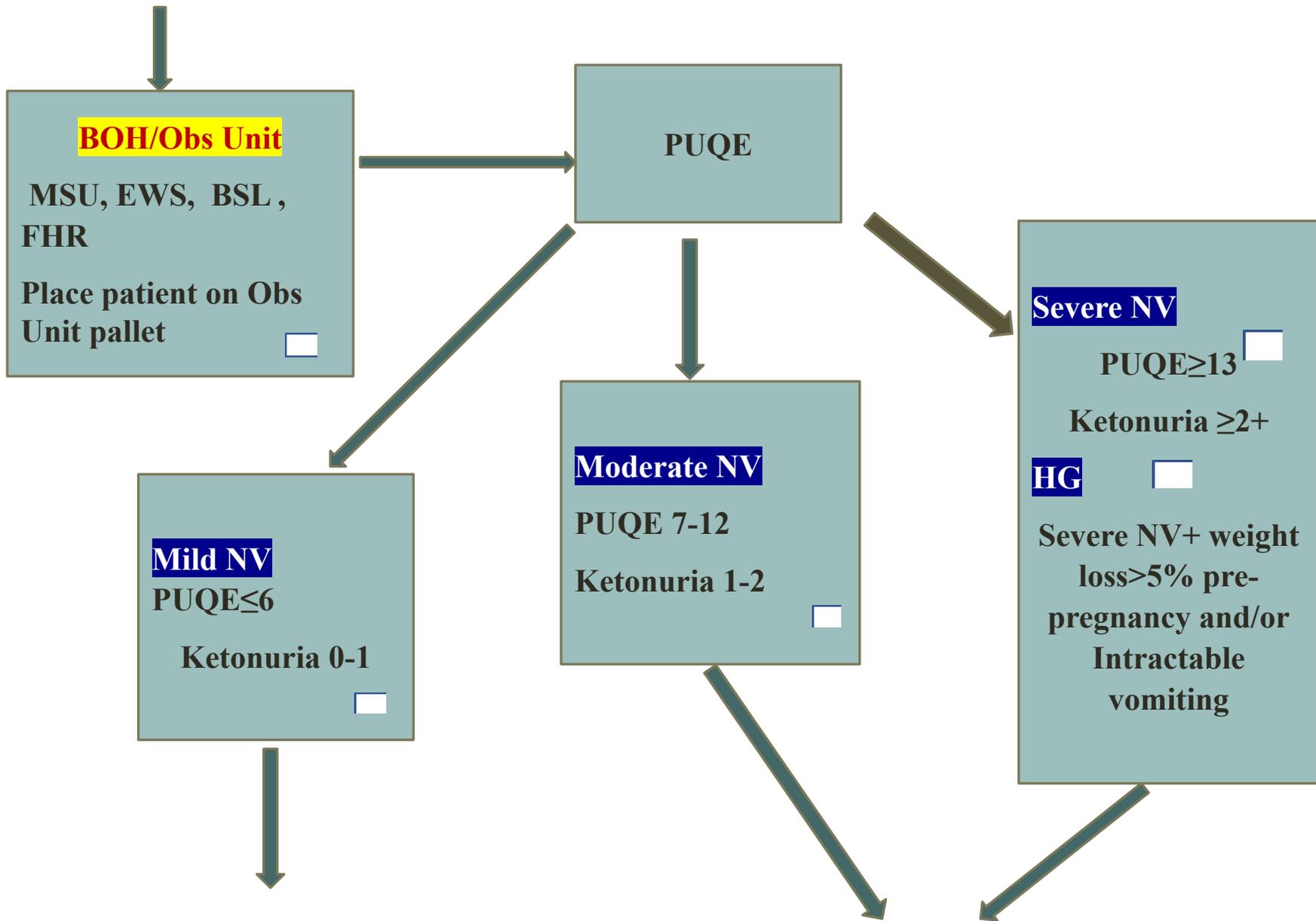
Scores: 1 (I did not throw up); 2 (1-2); 3 (3-4); 4 (5-6); 5 (7 or more times)

**Question 3:** In the last 24h, how many times have you had retching or dry heaves without throwing up?

Scores: 1 (none); 2 (1-2); 3 (3-4); 4 (5-6); 5 (7 or more times)

**Total score:** mild  $\leq 6$ ; moderate 7-12; severe  $\geq 13$





**BOH/Obs Unit**

MSU, EWS, BSL, FHR

Place patient on Obs Unit pallet

**PUQE**

**Mild NV**

PUQE ≤ 6

Ketonuria 0-1

**Moderate NV**

PUQE 7-12

Ketonuria 1-2

**Severe NV**

PUQE ≥ 13

Ketonuria ≥ 2+

**HG**

Severe NV + weight loss > 5% pre-pregnancy and/or intractable vomiting

**Mild**

d/w Clinician re bloods, po antiemetics if previous taken already.

Trial p.o. fluids first, then I.V.F if po fail.

d/w Clinician re bloods, po/i.v. antiemetics

**Moderate** -Trial p.o. fluid where appropriate

**Severe and HG** - 1L N Saline NSO

Monitor-EWS, evaluate progress

Patient education- Health Info sheet given

Check psychosocial support- PCW referral if needed

Aim for Dx home or Hospital within 4-5h of arrival



**Thank you everyone for coming 😊**

## References

- American College of Obstetricians and Gynaecologists (ACOG). (2019). Gestational hypertension and preeclampsia. *Practice Bulletin No. 202 Obstet. Gynecol. 2019 Jan*;133(1):1. DOI: 10.1097/AOG.0000000000003019.PMID: 30575668: Obstetrics & Gynaecology.
- Community Health Pathways. (2020).Pregnancy-related nausea and vomiting. Retrieved May 21, 2021, from <http://www.canterbury.communityhealthpathways.org/25368.htm>.
- Douma, M.J., Drake, C.A., O'Dochartaigh. & Smith, K.E. (2016). A pragmatic randomized evaluation of a nurse-initiated protocol to improve timeliness of care in an urban emergency department. *Annals of Emergency Medicine*, 68(5), 546-552
- Ghuri F., Hollywood M. & Ryan K. (2020). ‘There is no choice apart from antibiotics...’: Qualitative analysis of views on urinary infections in pregnancy and antimicrobial resistance . *Health expectations 2020*; 23:643-649. [wileyonlinelibrary.com/journal. Hex](http://wileyonlinelibrary.com/journal.Hex).  
DOI: 10.1111/hex.13044.
- Havnen GC, Truong MB, Do MH, Heitmann K, Holst L, Nordeng H. Women's perspectives on the management and consequences of hyperemesis gravidarum - a descriptive interview study. *Scand J Prim Health Care*. 2019 Mar;37(1):30-40. doi: 10.1080/02813432.2019.1569424. Epub 2019 Mar 1. Erratum in: *Scand J Prim Health Care*. 2019 Mar;37(1):141. PMID: 30822254; PMCID: PMC6454401.
- HealthInfo Canterbury. (2021). Nausea and vomiting in pregnancy (morning sickness). Retrieved June 20, 2021, from <http://healthinfo.org.nz/index.htm?home.htm>.
- Khan F.H. (2021). Hyperemesis Gravidarum in Emergency Medicine. <http://emedicine.medscape.com>.
- Koren G., Boskovic R., Hard M., Maltepe C., Navioz Y., Einarson A. (2002). Motherisk-PUQE (pregnancy unique quantification of emesis and nausea) scoring system for nausea and vomiting of pregnancy. *American Journal of Obstetrics and Gynaecology*

Koren G., Piwko C., Ahn E., et al. (2005). Validation studies of the pregnancy unique quantification of emesis (PUQE) scores. *Journal Obstetrics and Gynaecology*.

London V., Grube S., Sherer D. M. & Abulafia O. (2017). Hyperemesis Gravidarum: A review of recent literature.

Popa SL, Barsan M, Caziuc A, Pop C, Muresan L, Popa LC, Perju-Dumbrava L. Life-threatening complications of hyperemesis gravidarum. *Exp Ther Med*. 2021 Jun;21(6):642. doi: 10.3892/etm.2021.10074. Epub 2021 Apr 16. PMID: 33968173; PMCID: PMC8097228.

Sheehan P. Hyperemesis gravidarum--assessment and management. *Aust Fam Physician*. 2007 Sep;36(9):698-701. PMID: 17885701.

Stauber MA. Advanced nursing interventions and length of stay in the emergency department. *J Emerg Nurs*. 2013 May;39(3):221-5. doi: 10.1016/j.jen.2012.02.015. Epub 2012 May 18. PMID: 22608129.

Summers A. Emergency management of hyperemesis gravidarum. *Emerg Nurse*. 2012 Jul;20(4):24-8. doi: 10.7748/en2012.07.20.4.24.c9206. PMID: 22876404.

Tan A, Lowe S, Henry A. Nausea and vomiting of pregnancy: Effects on quality of life and day-to-day function. *Aust N Z J Obstet Gynaecol*. 2018 Jun;58(3):278-290. doi: 10.1111/ajo.12714. Epub 2017 Sep 26. PMID: 28949009.

Turner, M. (2007). Hyperemesis gravidarum: providing woman centred care. *British Journal of Midwifery*, 15(9), 540-544.