Frimley Health
NHS Foundation Trust

Oral Intake in Labour and Prior to Caesarean Section

Key Points

- Pregnant women undergoing anaesthesia are at risk of aspiration of gastric contents.
- Women at low risk of aspiration should be allowed to eat a low residue diet.
- All women at high-risk of aspiration in labour should have clear fluids ONLY as they desire. They should also be prescribed antacid prophylaxis.

Version: 3.0
Date Issued: 22 April 2024
Review Date: March 2027
Key words: Oral intake labour, aspiration, antacid prophylaxis

This is a controlled document. If you are using a printed copy, check it against the guidelines site to ensure you are using the latest edition. Print copies must be destroyed after use.

Abbreviations

CTG	Cardio-tocograph
FGR	Foetal Growth Restriction
PET	Pre-eclampsia
PPH	Post-partum Haemorrhage

Contents

1. Introduction

1.1 Pregnant women undergoing general anaesthesia, with a high spinal or those who have lost consciousness (PET, epilepsy) are at risk of aspiration of gastric contents. Though this is a rare occurrence it has the potential to be fatal by leading to Mendleson's syndrome or airway obstruction, which could result in death[1]. Anaesthesia associated fatal aspiration in NAP4 showed 1:350,000, although aspiration remains the most significant cause of airway related mortality responsible for 50% of anaesthetic deaths[2].

The use of regional anaesthesia has greatly reduced the incidence of aspiration pneumonitis[3]. However, it is difficult to predict which woman would end up with general anaesthesia. Therefore, anyone at high risk of requiring operative intervention should be treated as high risk[4]; see below.

1.2 A balance has to be struck between safety and avoidance of prolonged fasting times. Hence, until labour is established, women should be allowed to eat and drink normally[3,4,5]. Once labour is established women should be categorised into low risk and high risk groups for possible aspiration, the risk being that the patient may need operative delivery[2,3,4]. It is shown that during low risk labour, liberal fluid intake has significantly contributed towards maternal satisfaction and comfort with no differences in outcome[3].

2. Women at Low Risk of Aspiration in Labour

2.1 Allowing women to eat and drink during labour helps prevent dehydration and ketosis and thus, potentially, may affect obstetric outcome[5]. Women should take regular prescribed medication.

2.2 Low risk women should be allowed to eat a low residue diet[4,5]. Examples include lightly buttered toast, plain biscuits and glucose tablets. Ideal drinks include: water, isotonic sports drinks, squash, tea and coffee with limited milk. Regional analgesia does not increase chances of Caesarean section. A woman with a low risk labour and an epidural in situ can be considered as low risk and can eat a low residue diet.

3. Women at High Risk of Aspiration in Labour

3.1 Women at high risk of aspiration includes anyone who is at increased risk of the delivery to be expedited for maternal or fetal reason for operative delivery.

- Previous Caesarean delivery or uterine scar due to another cause
- Breech presentation
- Severe pre-eclampsia
- FGR +/- abnormal dopplers
- Pre-existing or Gestational Diabetes (if well controlled, could be considered low risk for aspiration)
- BMI > 40
- Women at risk of PPH
- Women with signs or symptoms of potential chorio-amnionitis
- Women needing septic screen as per sepsis pathway
- Antepartum and intra-partum haemorrhage
- Slow progress in labour
- Prematurity < 36/40

- Intrapartum opioids including pethidine
- Multiple pregnancy
- CTG concerns
- Women who are on oxytocin infusion
- Meconium stained liquor
- Large for gestational age
- Loss of consciousness in labour (for whatever reason)
- Anticipated anaesthetic difficulties, e.g., women with severe scoliosis, previous back surgery which contraindicates spinal anaesthesia or increases its risk of failure, women with known or predicted difficult airway

3.2 All women at high risk of aspiration in labour should have clear fluids as they desire. They should be advised not to eat. Good examples are isotonic sports drinks or carbohydrate drinks.

3.3 Antacid prophylaxis for high risk mothers should be omeprazole 40mg BD.

3.4 Eating and drinking should be re-established as soon as possible after the surgical intervention and as soon as it is safe.

4. Elective Caesarean Section

4.1 Morning list:

- Nil by mouth from 2am for food
- Clear fluids permitted until 2hrs before sending; sips of clear fluid between 2hrs and before sending
- Omeprazole 40mg PO night before surgery
- Omeprazole 40mg PO 2 hours before surgery

4.2 Afternoon list:

- Nil by mouth from 7am for food
- Clear fluids permitted until 2hrs before sending, sips of clear fluid between 2hrs and before sending
- Omeprazole 40mg PO night before surgery
- Omeprazole 40mg PO 2 hours before surgery

5. Emergency Caesarean Section & Operative Intervention in Theatre

5.1 It is hoped that by administering omeprazole in labour to women at high risk of surgical intervention, a large proportion of women requiring emergency obstetric surgery will have already been given omeprazole appropriately.

5.2 Oral omeprazole takes at least 60min to raise gastric pH and reaches maximal effect by 2hrs.Urgent surgery should not be delayed for the administration of omeprazole, but every effort should be made to administer it prior to transfer to theatre. Oral sodium citrate 0.3M 30ml should be considered prior to a general anaesthetic

6. References

1. Robinson, M. and Davidson, A. (2014) 'Aspiration under anaesthesia: risk assessment and decision-making', *Continuing Education in Anaesthesia Critical Care & Pain*, 14(4), pp. 171-175. Available at: https://doi.org/10.1093/bjaceaccp/mkt053 (Accessed: 29 December 2023)

2. Cook, T. M. *et al.* (2011) 'Aspiration of gastric contents and of blood', in Cook, T. M. *et al.* (eds.) *Major complications of airway management in the United Kingdom:* The Royal College of Anaesthetists and The Difficult Airway Society, pp. 155-164. Available at: https://www.rcoa.ac.uk/sites/default/files/documents/2019-09/NAP4%20Full%20Report.pdf (Accessed: 29 December 2023)

3. Scrutton, M. J. *et al*. (1999) 'Eating in labour. A randomised controlled trial assessing the risks and benefits', *Anaesthesia*, 54(4), pp. 329-334. Available at: https://doi.org/10.1046/j.1365-2044.1999.00750.x (Accessed: 29 December 2023)

4. National Institute for Health and Care Excellence [NICE] (2023) *Intrapartum care*. NG235. Available at: https://www.nice.org.uk/guidance/ng235 (Accessed: 29 December 2023)

5. O'Sullivan, G. *et al.* (2009) 'Effect of food intake during labour on obstetric outcome: randomised controlled trial', *BMJ*, 338. Available at: https://doi.org/10.1136/bmj.b784 (Accessed: 29 December 2023)

Full version control record

Version:	3.0
Guidelines Lead(s):	Dr Nimisha Patel, Consultant Anaesthetist, WPH
Contributor(s):	
Lead Director / Chief of Service:	Dr Subodh Tote, CoS for Anaesthetics, Theatres and Critical Care
Library check completed:	29 December 2023
Ratified at:	Anaesthesia Clinical Governance, 20 March 2024 Obstetrics Clinical Governance, 27 March 2024
Date Issued:	22 April 2024
Review Date:	March 2027
Pharmaceutical dosing advice and formulary compliance checked by:	Ruhena Ahmad, January 2024
Key words:	Oral intake labour, aspiration, antacid prophylaxis

This guideline has been registered with the Trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt, contact a senior colleague or expert. Caution is advised when using guidelines after the review date.
This guideline is for use in Frimley Health NHS Foundation Trust hospitals only. Any use outside this location will not be supported by the Trust and will be at the risk of the individual using it.

Version History

Version	Date	Guideline Lead(s)	Status	Comment
1	December 2018	Dr Nimisha Patel	Final	
2	March 2021	Dr Nimisha Patel, Dr Amila Lankatilake	Final	
3	January 2024	Dr Nimisha Patel	Final	

Related Documents

Document Type	Document Name
Guideline	Management of Pulmonary Aspiration of Gastric Contents in Obstetrics