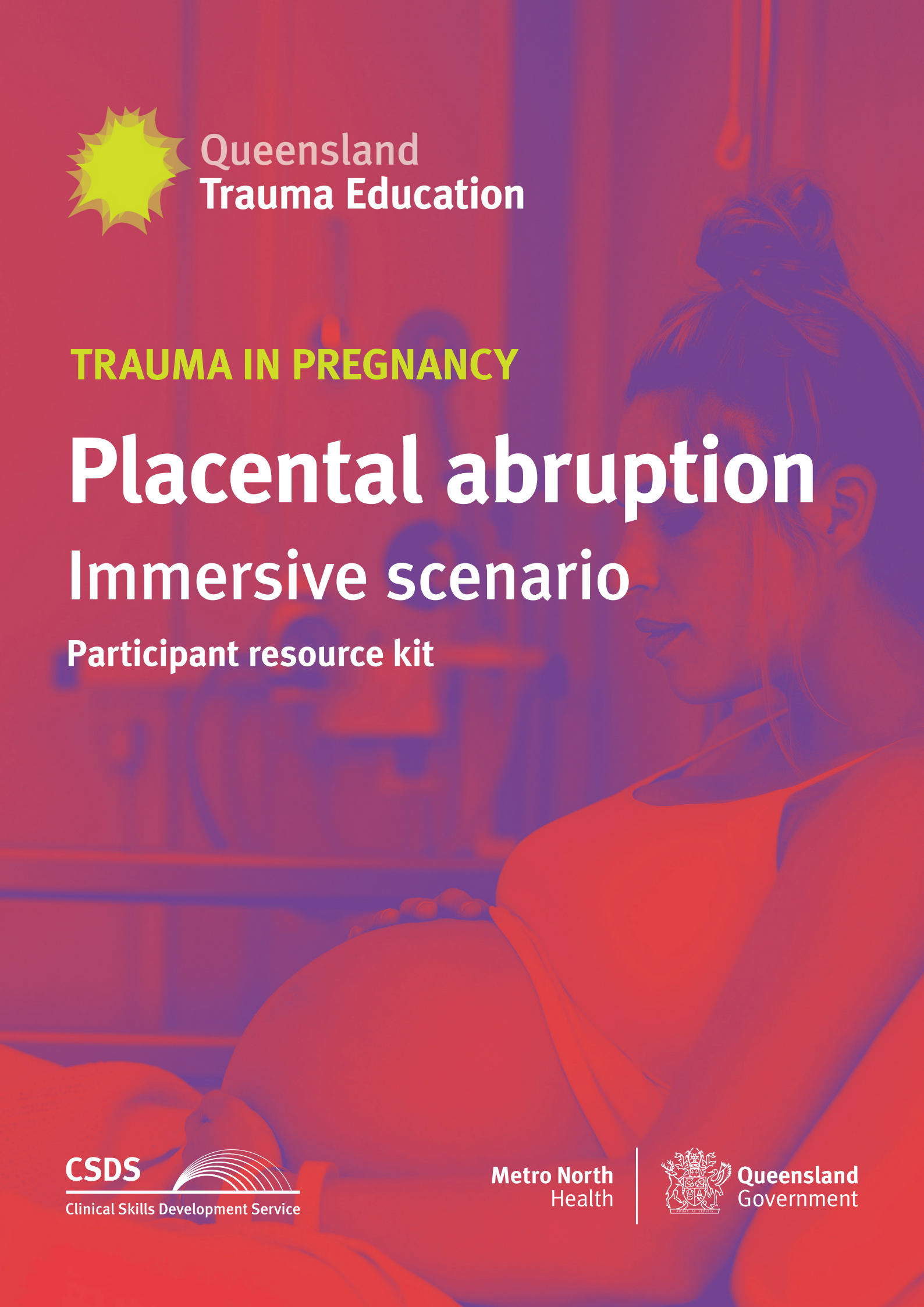
Queensland
Trauma Education

TRAUMA IN PREGNANCY

Placental abruption

Immersive scenario

Participant resource kit



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Queensland Trauma Education
Trauma in Pregnancy - Placental abruption: Immersive scenario - Participant resource kit
Version 1.0

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Queensland Trauma Education

The resources developed for Queensland Trauma Education are designed for use in any Queensland Health facility that cares for patients who have been injured as a result of trauma. Each resource can be modified by the facilitator and scaled to the learners needs as well as the environment in which the education is being delivered, from tertiary to rural and remote facilities.

National Safety and Quality Health Service (NSQHS) Standards

About this training resource kit

This resource kit provides healthcare workers with the basic knowledge and skills on how to assess and manage placental abruption following a traumatic incident.

Learning objectives

By the end of this session the participant will be able to:

- Understand the importance of the initial assessment (primary and secondary) on admission to Emergency for a pregnant patient following a motor vehicle collision (MVC).
- Identify the need for additional investigations in the pregnant trauma patient.
- Recognise, manage and respond to clinical deterioration from placental abruption.

Supporting resources

- Structured assessment - infographic poster.
- Specific management - manual displacement.

Overview of placental abruption

Placenta abruption is a complete or partial separation of the implanted placenta before birth.

- Common complication and the leading cause of fetal death following trauma.[1,2,3]
- Most occur within 2-6 hrs and almost all within 24 hours post injury.[4]

Mechanism of injury – rapid deceleration often without direct trauma.

Further reading

Queensland Clinical Guidelines. Maternity and Neonatal Clinical Guideline - Trauma in pregnancy Assessment: page 13-14. Placental abruption: page 22.
https://www.health.qld.gov.au/__data/assets/pdf_file/0013/140611/g-trauma.pdf

Queensland Clinical Guidelines. Trauma in pregnancy clinical guideline education presentation.
https://www.health.qld.gov.au/__data/assets/pdf_file/0016/142342/ed-trauma.pdf

Queensland Clinical Guidelines. Maternity and Neonatal Clinical Guideline - Intrapartum fetal surveillance (IFS) https://www.health.qld.gov.au/__data/assets/pdf_file/0012/140043/g-ifs.pdf

Queensland Ambulance Service - Clinical Practice Guidelines. Obstetrics/Placental abruption.
https://www.ambulance.qld.gov.au/docs/clinical/cpg/CPG_Placental%20abruption.pdf

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Placental abruption

Structured assessment

1 Perform a primary survey

https://www.health.qld.gov.au/__data/assets/pdf_file/0035/146699/f-trauma-initial.pdf

Scan to view the Queensland Clinical Guideline ›

2 Perform fetal assessment

Obtain obstetric history. › Obtain estimation of gestational age. › Perform FHR monitoring
- over 23 weeks, initiate CTG
- normal value 110-160 bpm.

3 Perform a secondary survey

https://www.health.qld.gov.au/__data/assets/pdf_file/0033/145599/f-trauma-second.pdf

Scan to view the Queensland Clinical Guideline ›

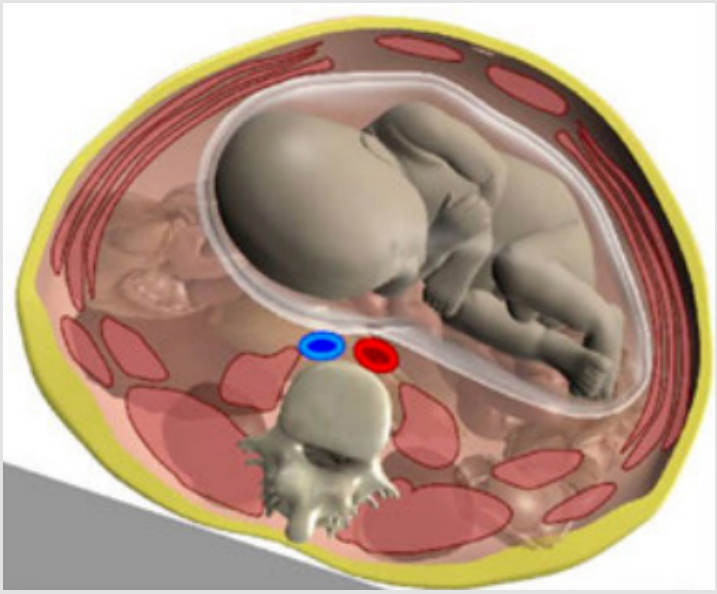
Specific management

Manual displacement

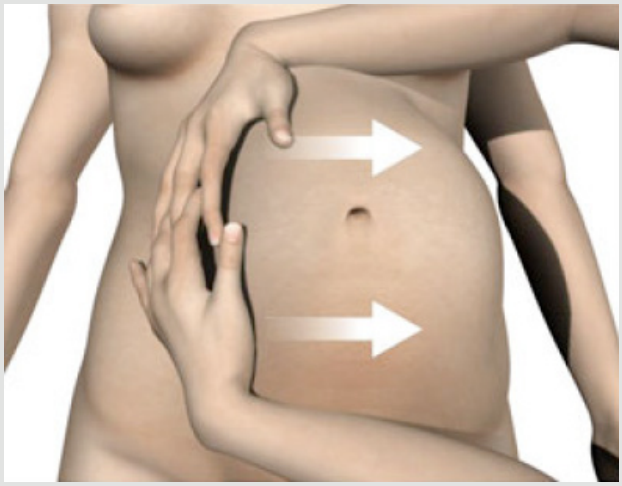
In the supine position the gravid uterus compresses the inferior vena cava and impairs venous return and reduces cardiac output.

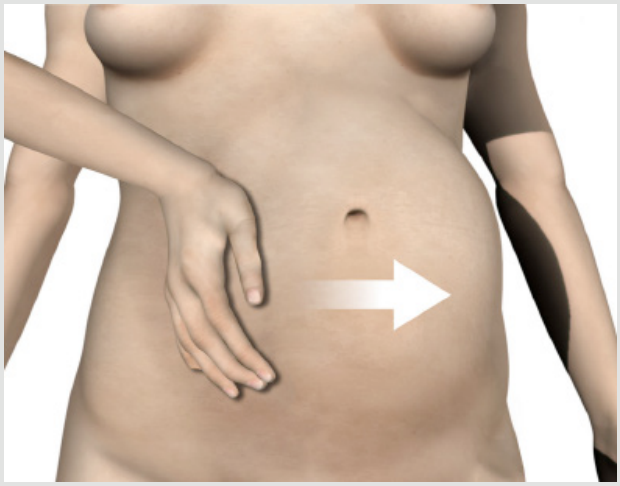
Compression is relieved by either:

a. Left lateral tilt.



b. Manual uterus displacement — preferred position for cardiac compressions.





Images produced by: Clinical Multimedia Unit
Metro North Hospital and Health Service, Queensland.

Acronyms and abbreviations

Cat 1	category one
CTG	cardiotocography
FHR	fetal heart rate
LSCS	lower (uterine) segment caesarean section
MTP	massive transfusion protocol
USS	ultrasound
PV	per vagina

References

1. Brown, S., & Mozurkewich, E. (2013). Trauma during pregnancy. *Obstetrics and gynecology clinics of North America*, 40(1), 47–57. https://doi.org/10.1016/j.ogc.2012.11.004
2. Jain, V., Chari, R., Maslovitz, S., Farine, D., Maternal Fetal Medicine Committee, Bujold, E., Gagnon, R., Basso, M., Bos, H., Brown, R., Cooper, S., Gouin, K., McLeod, N. L., Menticoglou, S., Mundle, W., Pylypjuk, C., Roggensack, A., & Sanderson, F. (2015). Guidelines for the Management of a Pregnant Trauma Patient. J*ournal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC*, 37(6), 553–574. https://doi.org/10.1016/s1701-2163(15)30232-2
3. Wyant, A. R., & Collett, D. (2013). Trauma in pregnancy: diagnosis and management of two patients in one. *JAAPA : official journal of the American Academy of Physician Assistants*, 26(5), 24–29. https://doi.org/10.1097/01720610-201305000-00005

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