

## PREGNANT WOMAN WITH A NON-OBSTETRIC PROBLEM (MANAGEMENT OF) Supporting information

This guideline has been prepared with reference to the following:

Bates SM, Greer IA, Middeldorp S, et al. VTE, thrombophilia, antithrombotic therapy, and pregnancy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest 2012;141:e691S-736S

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3278054/>

Leung AN, Bull TM, Jaeschke R, et al. An official American Thoracic Society/Society of Thoracic Radiology clinical practice guideline: evaluation of suspected pulmonary embolism in pregnancy. Am J Resp Crit Care Med 2011;184:1200-8

<http://www.atsjournals.org/doi/full/10.1164/rccm.201108-1575ST#.VS5cpfnF98E>

### **Patients in the second and third trimester must be nursed on a left lateral tilt (never supine) to prevent aortocaval compression?**

A study (Kuo, 1997) of three different recumbent positions on autonomic nervous activity in late pregnancy was carried out in 30 pregnant and 24 non-pregnant aged-matched women. The authors found that: "In the non-pregnant women, the normalised high-frequency power was greatest in the right lateral decubitus position. In the pregnant women, the normalised high-frequency power was lowest and the low/high-frequency power ratio was greatest in the supine position. Both the percentage decrease of normalised high-frequency power and the percentage increase of low/high-frequency power ratio in the supine and right lateral positions were greater than those in the left lateral position. For women in late pregnancy, the left lateral decubitus position may be beneficial because cardiac vagal activity is least suppressed and cardiac sympathetic activity is least enhanced. Aortocaval compression might be the mechanism underlying the change in cardiac autonomic nervous activity when supine and right lateral decubitus positions are assumed in late pregnancy." A prospective observational study of 26 patients (Fields et al, 2013) compared the left lateral and supine position and did not find any clear evidence to suggest that the former was superior. The authors reflected that inferior vena cava compression could be assessed via ultrasound at the bedside to determine optimal patient position.

Kuo CD, Chen GY, Yang MJ, et al. The effect of position on autonomic nervous activity in late pregnancy. Anaesthesia 1997;52:1161-5

Fields JM, Catallo K, Au AK et al. Resuscitation of the pregnant patient: What is the effect of patient positioning on inferior vena cava diameter? Resuscitation. 2013;84:304-8

### **Evidence Level: IV**

### **Radiological investigations are not contraindicated during pregnancy where there is a significant clinical indication?**

A 2021 review concluded that all available imaging modalities may be used for the evaluation of the pregnant woman providing the medical necessity of the examination (Bourgioti, 2021). The review authors further commented that potentially fatal conditions such as PE, trauma, PASD or pregnancy-associated cancers can be identified early and accurately with available imaging methods, thus improving maternal and fetal outcomes. Knowledge of current imaging recommendations and safety guidelines for the pregnant population may help both clinicians and radiologists select the most appropriate modality to image the expectant mother without causing any harmful effect on the fetus. A review of the subject (Fenig, 2001) states: "It seems that, due to the low level of X-ray exposure to the foetus, neither diagnostic radiography nor nuclear diagnostic examination justifies termination of pregnancy."

Bourgioti C, Konidari M, Gourtsoyianni S et al. Imaging during pregnancy: What the radiologist needs to know. Diagn Interv Imaging. 2021;102:593-603

Fenig E, Mishaeli M, Kalish Y, et al. Pregnancy and radiation. Cancer Treat Rev 2001;27:1-7

Not found an answer to your question? Wish to suggest an edit to this document?

Please contact the BCGP Clinical Effectiveness Librarian at [bedsideclinicalguidelines@uhn.nhs.uk](mailto:bedsideclinicalguidelines@uhn.nhs.uk)

**Evidence Level: III**

**Last amended December 2021  
Last reviewed January 2026**