



COVID-19 virus infection and pregnancy

Occupational health advice for employers and pregnant women during the COVID-19 pandemic

Version 2.1: Published Monday 30 March 2020

Summary of updates

Please note that version I of this occupational health guidance was published as a chapter in the RCOG's general Coronavirus (COVID-19) Infection in Pregnancy guidance. The occupational health guidance will now be published as a separate document given the audiences for each document are distinct. It is hoped that this will make it easier for all healthcare professionals to stay updated as new versions of each document are published in line with emerging evidence.

The occupational health guidance will continue to be referenced in the general Coronavirus (COVID-19) Infection in Pregnancy guidance.

Version	Date	Summary of changes
2.1	30.3.20	2.2: Update - Assessment of the risk of vertical transmission has been changed to 'probable', in line with a single case report published 26.3.20 that showed the first convincing evidence of COVID-19 being transmitted to the baby during pregnancy.

I. Introduction

Everyone in the UK is advised to follow guidance from the Government to lessen the spread of COVID-19. As of 23 March 2020, this has been updated to guidance to stay at home, with the exception of a limited number of circumstances, detailed <u>here</u>.

However, for individuals in key professions, travelling to and participating in work remains essential in this national emergency.

For pregnant women in these key professions, and in particular for pregnant healthcare professionals, the following information may be helpful when discussing how best to ensure health and safety in the workplace with their occupational health teams.

2. Available information about risks of contracting COVID-19 in pregnancy

COVID-19 poses a risk to all members of the population, particularly to people with co-morbidities. The groups who appear to be at the lowest risk of developing severe disease are children and healthy adults. It is reassuring that there is as yet no robust evidence that pregnant women are more likely to become infected than other healthy adults.

2.1 Risk to pregnant women

It is known from other respiratory infections (e.g. influenza, SARS)^{1,2} that pregnant woman who contract significant respiratory infections in the third trimester (after 28 weeks) are more likely to become seriously unwell. This may also lead to preterm birth of the baby, intended to enable the mother to recover through improving the efficiency of her breathing or ventilation.^{3,4}

Given these additional considerations for pregnant women who become seriously unwell in the later stages of pregnancy, the Government has taken the precautionary approach to include pregnant women in a vulnerable group. This is so that pregnant women are aware of the current lack of available evidence relating to this virus in pregnancy; and particularly, to encourage awareness that pregnant women in later stages of pregnancy could potentially become more seriously unwell.

2.2 Risk to the baby

Currently, there is no evidence to suggest that COVID-19 causes problems with the baby's development or causes miscarriage. With regard to vertical transmission (transmission from mother to baby antenatally or intrapartum), emerging evidence now suggests that vertical transmission is probable. There has been a report of a single case in which this appears likely, but reassuringly the baby was discharged from hospital and well. In all previously reported cases, infection was found at least 30 hours after birth. The proportion of pregnancies affected by vertical transmission and the significance to the neonate is not yet known. ⁴⁻¹

No previous coronavirus has been shown to cause fetal abnormalities; and, while COVID-19 is new, the absence of reports of an increased incidence of fetal abnormality at routine scans in Asia indicates this is likely to be the same for the novel coronavirus.

Although the evidence to date available offers no evidence of harm, it is not possible to give absolute assurance to any pregnant woman that contracting COVID-19 carries no risk to her baby and no risk to her over and above that experienced by a non-pregnant healthy individual. The information above combines the limited evidence from COVID-19 so far with evidence extrapolated from other similar viral illnesses. We are actively seeking more evidence and will update this guidance when this is available.

3. Recommendations for pregnant healthcare workers

In the UK, there already exist significant protections in law for pregnant workers. These must be followed in relation to COVID-19. NHS Employers should do everything possible to maintain the health of their pregnant employees. The central aspect of this protection is based on risk assessment of each individual pregnant worker's working environment and the role they play.

Acknowledging the evidence above and following discussion with the Government and UK Chief Medical Officers, the following recommendations should guide pregnant healthcare workers and occupational health teams in conducting this risk assessment.

3.1 Protection of all pregnant healthcare workers

In light of the limited evidence, pregnant women of any gestation should be offered the choice of whether to work in direct patient-facing roles during the COVID-19 pandemic. This choice should be respected and supported by their employers. Suitable alternative duties might include remote triage, telephone consultations, governance or administrative roles. This is in line with the national guidance that workers, including healthcare professionals, who are also identified by the Government as vulnerable to COVID-19 should be able to participate in their own risk assessment.

3.2 Choices for pregnant healthcare workers prior to 28 weeks' gestation

Pregnant women who choose to work in patient facing roles after occupational health risk assessment, prior to the third trimester of pregnancy, should be supported to do so by minimising risk of transmission through established methods.

It may not be possible to completely avoid caring for all patients with COVID-19. As for all healthcare workers, use of personal protective equipment (PPE) and risk assessments according to current guidance will provide pregnant workers with protection from infection. The arrival of rapid COVID-19 testing will significantly assist in organising care provision, and this guidance will be updated appropriately when such tests are commonly available.

Some working environments (e.g. operating theatres, respiratory wards and intensive care/high dependency units) carry a higher risk of exposure to the virus for all healthcare staff, including pregnant women, through the greater number of aerosol-generating procedures (AGPs) performed. These procedures are summarised in the PHE publication 'Guidance on Infection Prevention and Control'. When caring for suspected or confirmed COVID-19 patients all healthcare workers in these settings are recommended to use appropriate PPE. Where possible, pregnant women are advised to avoid working in these areas with patients with suspected or confirmed COVID-19 infection.

3.3 Healthcare workers after 28 weeks' gestation or with underlying health conditions

For pregnant women from 28 weeks' gestation, or with underlying health conditions such as heart or lung disease at any gestation, a more precautionary approach is advised. Women in this category should be recommended to stay at home. For many healthcare workers, this may present opportunities to work flexibly from home in a different capacity, for example by undertaking telephone or videoconference consultations, or taking on administrative duties.

All NHS employers should consider how to maximise the potential for homeworking given current relaxation of **NHS Information Governance requirements**, wherever possible.

Staff in this risk group who have chosen not to follow government advice and attend the workplace must not be deployed in roles where they are working with patients. Services may want to consider deploying these staff to support other activities such as education or training needs (e.g. in IPC or simulation).

These measures will allow many pregnant healthcare workers to choose to continue to make an active and valuable contribution to the huge challenge facing us, whether at home or in the workplace, until the commencement of their maternity leave.

References

- I. Critical illness due to 2009 A/HIN1 influenza in pregnant and postpartum women: population based cohort study. BMJ 2010;340:c1279. doi: 10.1136/bmj.c1279
- 2. Zhang J, Wang Y, Chen L, et al. Clinical analysis of pregnancy in second and third trimesters complicated severe acute respiratory syndrome. Zhonghua Fu Chan Ke Za Zhi 2003;38:516-20.
- 3. Liu Y, Chen H, Tang K, et al. Clinical manifestations and outcome of SARS-CoV-2 infection during pregnancy. Journal of Infection 2020; Online doi: https://doi.org/10.1016/j.jinf.2020.02.028
- 4. Dong L, Tian J, He S, et al. Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn. JAMA 2020 doi: 10.1001/jama.2020.4621
- 5. Chen H, Guo J, Wang C, et al. Clinical characteristics and intrauterine vertical transmission potential of COV-ID-19 infection in nine pregnant women: a retrospective review of medical records. Lancet 2020 doi: https://doi.org/10.1016/S0140-6736(20)30360-3
- 6. Chen Y, Peng H, Wang L, et al. Infants Born to Mothers With a New Coronavirus (COVID-19). Frontiers in Pediatrics 2020;8(104) doi: 10.3389/fped.2020.00104
- 7. Li N, Han L, Peng M, et al. Maternal and neonatal outcomes of pregnant women with COVID-19 pneumonia: a case-control study. . Pre-print doi: 10.1101/2020.03.10.20033605
- 8. Zhu H, Wang L, Fang C, et al. Clinical analysis of 10 neonates born to mothers with 2019-nCoV pneumonia. Transl Pediatr 2020;9(1):51-60. doi: http://dx.doi.org/10.21037/tp.2020.02.06
- 9. Wang L, Shi Y, Xiao T, et al. Chinese expert consensus on the perinatal and neonatal management for the prevention and control of the 2019 novel coronavirus infection (First edition). Annals of Translational Medicine 2020;8(3):47.
- 10. Chen S, Huang B, Luo DJ, et al. Pregnant women with new coronavirus infection: a clinical characteristics and placental pathological analysis of three cases. Zhonghua Bing Li Xue Za Zhi 2020;49(0):E005-E05. doi: 10.3760/cma.j.cn112151-20200225-00138
- 11. Fan C, Lei D, Fang C, et al. Perinatal Transmission of COVID-19 Associated SARS-CoV-2: Should We Worry? Clinical Infectious Diseases 2020 doi: 10.1093/cid/ciaa226

DISCLAIMER: The Royal College of Obstetricians and Gynaecologists (RCOG) has produced this guidance as an aid to good clinical practice and clinical decision-making. This guidance is based on the best evidence available at the time of writing, and the guidance will be kept under regular review as new evidence emerges. This guidance is not intended to replace clinical diagnostics, procedures or treatment plans made by a clinician or other healthcare professional and RCOG accepts no liability for the use of its guidance in a clinical setting. Please be aware that the evidence base for COVID-19 and its impact on pregnancy and related healthcare services is developing rapidly and the latest data or best practice may not yet be incorporated into the current version of this document. RCOG recommends that any departures from local clinical protocols or guidelines should be fully documented in the patient's case notes at the time the relevant decision is taken.





