

23 April 2020

Evidence check

Rapid evidence checks are based on a simplified review method and may not be entirely exhaustive, but aim to provide a balanced assessment of what is already known about a specific problem or issue. This brief has not been peer-reviewed and should not be a substitute for individual clinical judgement, nor is it an endorsed position of NSW Health.

Neonates and COVID-19

Rapid review topic

The Maternity Community of Practice requires some urgent information on the risk of newborn babies developing COVID-19.

Limitations

Evidence is emerging regarding peri-partum COVID-19. This evidence check does not address care for high risk cases such as babies born with serious health problems.

Background

Guidance from the Royal Australian and New Zealand College of Obstetricians and Gynaecologists regarding COVID-19 states:

- Pregnant women who develop COVID-19 do not appear to be more severely unwell than the general population. It is expected that the large majority of pregnant women will experience only mild or moderate cold or flu-like symptoms.
- There is no evidence to suggest an increased risk of miscarriage with COVID-19.
- No cases of vertical transmission have been confirmed but the possibility has not been excluded.
- There is no evidence the COVID-19 virus will cause abnormalities in an unborn baby.
- There is no evidence that caesarean section or induction of labour is necessary to reduce the risk of vertical transmission.
- Some babies of women with symptoms of COVID-19 in China were born prematurely, but it's unclear whether this was due to the virus or doctors' decisions.
- Newborn babies and infants do not appear to be at increased risk of complications from COVID-19.
- There is no evidence that the virus is carried in breastmilk and, therefore, the well-recognised benefits of breastfeeding outweigh any potential risks of transmission of COVID-19 through breastmilk. If the mother has COVID-19, she should not be automatically separated from her baby, but should take enhanced precautions with general hygiene and consider a face mask when feeding.

<https://ranzco.org.au/statements-guidelines/covid-19-statement/information-for-pregnant-women>

Methods

Pubmed search 22 April: (2019-nCoV[title/abstract] or nCoV*[title/abstract] or covid-19[title/abstract] or covid19[title/abstract] OR "covid 19"[title/abstract] OR "coronavirus"[MeSH Terms] OR "coronavirus"[title/abstract] OR sars-cov-2[title/abstract] OR "severe acute respiratory syndrome coronavirus 2"[Supplementary Concept]) AND (neonate OR newborn)

Targeted search of websites of: Centre for Evidence-Based Medicine <https://www.cebm.net/covid-19/>; Up to Date

Google search using terms COVID-19 and neonates and newborns.

Results

Question 1 – Can neonates develop COVID-19?

- Neonatal infection has been documented.(1)(2)(3)
- Neonates may become infected via droplet transmission from virus carriers

Question 2 – What is the incubation period for newborn babies?

- The incubation period for COVID-19 is 1-14 days.(4) There is no evidence to suggest this is different in neonates.

Question 3 – What are the symptoms to look for in newborn babies?

- The clinical symptoms from neonates with or at risk of COVID-19 are mild.(5) Symptoms include shortness of breath, fever and lethargy.(1)

Question 4 – What are the risks of neonates contracting COVID-19 from their COVID-19 positive mothers?

- No cases of vertical transmission have been confirmed but the possibility has not been excluded.(6-8)
- COVID-19 has not been detected in cord blood, amniotic fluid, or placental tissue.(3)(5)
- Viraemia rates appear to be low(9) (around 1% of positive cases), suggesting placental seeding and vertical transmission are unlikely.

References

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Evidence checks are archived a year after the date of publication

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