COVID-19: CARE OF MOTHER AND BABY DURING CHILDBIRTH

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Care of mother with COVID-19 and her baby

- Antepartum, Intrapartum, Postnatal

Minimise infection risk

- Baby, healthcare professionals, partner
<table>
<thead>
<tr>
<th>Outcomes</th>
<th>No of studies</th>
<th>Pregnant women with covid-19</th>
<th>Comparison group</th>
<th>Odds ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-cause mortality</td>
<td>11</td>
<td>242/122 222 (0.2)</td>
<td>5 252/1 138 726 (0.2)</td>
<td>1.48 (0.62 to 3.49)</td>
</tr>
<tr>
<td>ICU admission</td>
<td>10</td>
<td>912/118 403 (0.8)</td>
<td>11 513/1 908 957 (0.6)</td>
<td>2.61 (1.84 to 3.71)</td>
</tr>
<tr>
<td>Invasive ventilation</td>
<td>8</td>
<td>310/116 458 (0.3)</td>
<td>3607/1 772 716 (0.2)</td>
<td>2.41 (2.13 to 2.71)</td>
</tr>
<tr>
<td>ECMO</td>
<td>5</td>
<td>19/30 694 (0.1)</td>
<td>122/432 623 (0.0)</td>
<td>3.71 (0.71 to 19.41)</td>
</tr>
</tbody>
</table>

Comparison group: non-pregnant women of reproductive age with covid-19

<table>
<thead>
<tr>
<th>Maternal outcomes:</th>
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</thead>
<tbody>
<tr>
<td>All-cause mortality</td>
<td>21</td>
<td>47/11 362 (0.4)</td>
<td>37/411 126 (0.0)</td>
<td>6.09 (1.82 to 20.38)</td>
</tr>
<tr>
<td>ICU admission</td>
<td>21</td>
<td>447/12 957 (3.4)</td>
<td>1 962/459 359 (0.4)</td>
<td>5.41 (3.59 to 8.14)</td>
</tr>
<tr>
<td>Preterm birth &lt;37 w</td>
<td>48</td>
<td>1 306/12 076 (10.8)</td>
<td>26 068/436 964 (6.0)</td>
<td>1.57 (1.36 to 1.81)</td>
</tr>
<tr>
<td>Caesarean section</td>
<td>53</td>
<td>4165/12 385 (33.6)</td>
<td>147 645/614 402 (24.0)</td>
<td>1.17 (1.01 to 1.36)</td>
</tr>
</tbody>
</table>

Perinatal outcomes:

| Stillbirth                            | 25             | 76/9 338 (0.8)              | 1 397/141 139 (0.3) | 1.81 (1.38 to 2.37) |
| Neonatal death                        | 21             | 16/3 153 (0.5)              | 28/9 263 (0.3)      | 2.35 (1.16 to 4.76) |
| Admission neonatal unit               | 29             | 687/4 072 (16.9)            | 6 968/193 124 (3.6) | 2.18 (1.46 to 3.26) |
| Fetal distress                        | 6              | 131/1 073 (12.2)            | 246/3 933 (6.3)     | 2.22 (1.45 to 3.41) |
ANTENATAL & EARLY LABOUR

Maintain

Maintain facility-based care as recommended

Assess

Assess for COVID-19
- Screen at first point of contact
- Diagnose and assess severity

Establish

Establish infection prevention and control strategies
- Implement source control
- Universal masking
- PPE, hand hygiene, distance
If preterm (24-34 weeks) and mild COVID-19, corticosteroids for fetal lung maturity

Asymptomatic COVID-19

- Establish labour and further obstetric care as per usual protocol
- Regular monitoring – maternal temperature, respiratory rate, oxygen saturation
- Routine CTG not needed

Symptomatic COVID-19

- Assess severity
- Close maternal and fetal monitoring
- Multidisciplinary team involvement – obstetrician, anaesthetist, physician, neonatologist
- Medical management of COVID-19
IN LABOUR

Routine caesarean section not indicated
No contraindication for fetal blood sampling or fetal scalp electrodes

Encourage mobility and upright position where possible

Offer adequate pain relief
Entonox – keep distance, breathe into circuit, mouth piece care
MOTHER-TO-CHILD TRANSMISSION (MTCT) CONCERNS

VERTICAL

HORIZONTAL
Overall rates of SARS-CoV-2 positivity in babies is low

1.8% (95% CI 1.1 – 2.7%) of the 11,573 babies (99 studies) tested RT-PCR positive

vertical transmission rare
## FACTORS ASSOCIATED WITH SARS-COV-2 POSITIVITY IN BABIES

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>No. of studies</th>
<th>No. of mother-baby dyads</th>
<th>Risk factor present/test positive babies n/N</th>
<th>Risk factor present/test negative babies n/N</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing of maternal infection</strong></td>
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<td></td>
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<tr>
<td>Postnatal vs antenatal</td>
<td>10</td>
<td>750</td>
<td>19/73</td>
<td>103/677</td>
<td>4.99 (1.24 - 20.14)</td>
</tr>
<tr>
<td>3rd vs 1st or 2nd trimester</td>
<td>4</td>
<td>1346</td>
<td>99/99</td>
<td>1106/1122</td>
<td>0.39 (0.08 - 1.82)</td>
</tr>
<tr>
<td><strong>Intrapartum factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Preterm vs term</td>
<td>27</td>
<td>3160</td>
<td>38/221</td>
<td>400/2939</td>
<td>1.26 (0.81 - 1.95)</td>
</tr>
<tr>
<td>Vaginal birth vs CS</td>
<td>36</td>
<td>3942</td>
<td>107/185</td>
<td>1843/3757</td>
<td>1.10 (0.80 - 1.53)</td>
</tr>
<tr>
<td><strong>Postnatal care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Not separated at birth vs separated</td>
<td>8</td>
<td>1321</td>
<td>33/75</td>
<td>544/1246</td>
<td>1.01 (0.47 - 2.17)</td>
</tr>
<tr>
<td>Breastfed vs not breastfed</td>
<td>7</td>
<td>1004</td>
<td>41/68</td>
<td>582/936</td>
<td>0.82 (0.44 - 1.54)</td>
</tr>
</tbody>
</table>
BIRTH

Vaginal birth safe for mother and baby
Partner present for delivery
Delayed cord clamping
Do not separate baby from mother at birth
Routine admission to neonatal unit not indicated
Routine caesarean section not indicated

Schedule elective caesarean section at end of the operating list

Unwell mother – caesarean section to facilitate maternal resuscitation

Emergency caesarean section – donning PPE time consuming

Keep staff in theatres to minimum

PPE can make communication difficult – use checklist

Simulation and drills
POSTNATAL

Support mothers with skin-to-skin and kangaroo care

Rooming-in day and night with relevant infection control measures

Recommend and support breastfeeding – both asymptomatic and symptomatic women

Women with COVID-19 can breastfeed if they wish to do so. They should:

- Practice respiratory hygiene and wear a mask
- Wash hands before and after touching the baby
- Routinely clean and disinfect surfaces

#COVID19 #CORONAVIRUS
ALTERNATIVES TO BREASTFEEDING

Avoid formula milk wherever possible

Use dedicated breast pump, infection control

Face covering not for babies

If a woman with COVID-19 is too unwell to breastfeed, she can be supported to safely provide her baby with breastmilk in other ways, including by:

- Expressing milk
- Enabling women who have stopped breastfeeding to resume production of breast milk
- Donor human milk

World Health Organization

#COVID19 #CORONAVIRUS
POSTNATAL

- Thromboprophylaxis
- If baby in NICU, maternal visit not recommended
- Postnatal physical and mental health
- Continued remote or in-person support where appropriate
**WORKFORCE**

- **Workable’ Guidelines for maternity** – update on a regular basis
- **Establish Senior/Experienced clinicians to lead the work**
- **Processes to minimise COVID-19 infection risks to mothers** - screen & treat
- **Processes to reduce staff risks** - drills & skills
- **Reorganised Maternity Unit**
  - Safe zones/areas - ‘low covid risk’
  - High risk zones/areas - ‘high covid risk’
- **Improve communication**
  - Shared guidelines, daily lessons, Hand over, Zoom meetings
Thank you!