Antibodies in infants born to mothers with covid-19 pneumonia

Infants born to mothers with COVID-19 pneumonia can acquire **maternal antibodies** — specifically, **IgG antibodies** — against SARS-CoV-2 through the **placenta** during pregnancy. Here's a summary of what is currently known:

1. Maternal-Fetal Transfer of Antibodies

- **IgG antibodies** can cross the placenta, typically in the **third trimester**, and provide **passive immunity** to the newborn.
- Several studies have shown that infants born to mothers with COVID-19, including those with COVID-19
 pneumonia, had detectable levels of anti-SARS-CoV-2 IgG antibodies at birth.
- These antibodies are not produced by the baby but are transferred from the mother and tend to wane over the first few months after birth.

2. Timing Matters

- The timing of maternal infection affects antibody levels:
 - If the infection occurs closer to delivery, there may be less time for maternal IgG production and transfer.
 - If infection occurs **several weeks before delivery**, the infant is more likely to have **higher levels of** antibodies.

3. IgM and Evidence of Fetal Infection \downarrow

