

## Peripartum Patients With Swine Flu Requiring Caesarean Section.

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**Background:** Influenza A (H1N1) virus, transmissible among human, was first identified in April 2009, which rapidly became a pandemic. The altered physiology during pregnancy predisposes women to the risk of infection and complications with influenza, similarly observed in previous influenza pandemics. Pregnant women account for 1% of the Australian and New Zealand populations but up to 9.1% of H1N1 infection critical care admissions.<sup>1</sup> The aim of this report is to discuss issues regarding H1N1 infected pregnant patients with acute respiratory distress syndrome who require Caesarean section.

**Cases:** We present two women who presented during the third trimester in labour with mild flu-like symptoms. Both women became hypoxic and subsequently tested positive for H1N1. The first woman presented at 38 weeks gestation, febrile and cyanosed with an oxygen saturation of 88% on room air. A chest X-ray showed bilateral alveolar opacities making influenza with ARDS the presumptive diagnosis. She was given oxygen and an epidural was inserted aiming for a normal vaginal delivery. Her oxygen requirement increased to 15L/min by face mask within three hours. This and the appearance of a non-reassuring CTG led to the decision for an emergency caesarean section under a general anaesthetic. The second case involved a parturient at 34 weeks gestation in a rural hospital. Oxygen therapy, anti-viral treatment and tocolytic therapy were initiated. During labour, she had increasing oxygen requirements and trialled non-invasive ventilation but failed to improve her hypoxia. Subsequently, she was intubated. During transfer to a tertiary centre, a non-reassuring CTG developed and an emergency caesarean section was conducted on arrival. Both patients delivered babies that were well with no signs of flu transmission. Post-operatively, both women were ventilated for several days but successfully weaned and discharged home.

**Discussion:** H1N1 can cause a rapidly progressive and very severe illness in pregnant women which present challenges in their care.<sup>2</sup> The cases illustrated issues including deciding the optimal time for delivery, the method of delivery and managing the infective risk for surrounding staff and patients. Particular anaesthetic dilemmas included providing analgesia in a febrile patient who may subsequently require heparinisation due to their increased risk of DVT and PE and the provision of anaesthesia for caesarean section. These decisions are best made with close coordination of a multidisciplinary team.

## References

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2. J.K Louie, M. Acosta, D. J. Jamieson. Severe 2009 H1N1 Influenza in Pregnant and Postpartum Women in California. *N Engl J Med* 2009, 362;1:27-35