

## Understanding air travel and pregnancy

By Robb Leigh MD

**Although air travel during pregnancy is generally considered safe by the experts, and the incidence of pregnancy-related inflight emergencies is low compared to other medical cases, a regional airline is still likely to encounter such situations.**

In fact, over the past three years, MedAire has handled 109 cases of threatened miscarriage, 20 pre-term labour cases and 12 actual labours during flight.

While the American College of Obstetricians and Gynecologists advises that the safest time for pregnant women to travel is the second trimester (13-28 weeks), airlines will find many women travelling at various stages of pregnancy.

### Recognising and managing pregnancy conditions

Having a basic understanding of the physiological changes that occur during pregnancy and related problems will enhance your airline's capabilities.

- Morning sickness, involving nausea and vomiting, can cause significant discomfort for the mother, fellow passengers and crew. Ideally, passengers should travel with anti-nausea medicines from their physicians. If they do not, the front row – preferably bulkhead and aisle seats – will minimise turbulence, provide more legroom and allow easy access to the bathroom. Crackers and ginger tea will decrease nausea, and motion sickness bags should be readily available.
- Vaginal bleeding of varying seriousness may happen at any time during pregnancy. Although no specific inflight treatment is available, a passenger with severe bleeding should be placed on her left side and a medical volunteer should start intravenous (IV) therapy to help stabilise her as crew contact land-based telemedicine physicians.
- Premature contractions are more common in the third trimester (week



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28 until the birth). Crew should keep the mother as comfortable as possible and obtain help from onboard medical volunteers and land-based telemedicine physicians. Because labour normally takes several hours, delivery at the destination is likely.

- Eclampsia involves generalised convulsions. Any pregnant woman having convulsions should be assumed to have eclampsia, an obstetric emergency with only one effective treatment: delivery.
- Lower extremities swelling from fluid retention is common and involves both legs, whereas swelling from deep vein thrombosis (DVT) is almost always unilateral. If DVT is suspected, evaluate the passenger promptly upon landing.
- Dehydration can be harmful to the foetus and will increase the likelihood of DVT. Proper hydration, along with avoidance of alcohol and caffeine, is advised.
- Hypoxia (shortage of oxygen) is not an issue to otherwise healthy pregnant women, as they tolerate altitudes of up to 2,438m well. However, sudden shortness of breath is a matter for concern, perhaps indicating pulmonary embolism or fluid build-up in the lungs. Both conditions require prompt evaluation.
- Uterine growth and its implications: as the uterus grows, pressure is

applied on the inferior vena cava, the large blood vessel that brings blood from lower extremities to the heart. To reduce clot formation and stagnation from pressure placed on this vessel, the mother can be placed on her left side. Because the inferior vena cava is on the right side, moving her into this position displaces the pregnant uterus and allows prompt return of blood from lower extremities. This manoeuvre can also be life-saving to the foetus in cases of severe vaginal bleeding or dehydration.

- Seat belt position – to minimise pressure on the uterus in case of turbulence, crews should instruct pregnant passengers to wear seat belts below the belly, over the hips and upper thighs.

When dealing with pregnant passengers in distress, airline crew should calmly assess the situation, identify the problem, stabilise the passenger by placing her on her left side across the seats or on the floor, page for a medical volunteer and establish communication with land-based physicians.

Fortunately, most inflight pregnancy-related problems are seldom life-threatening and the passenger can be stabilised until seen by a ground physician. Flight diversions are uncommon, especially in the case of short-haul flights. ■

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