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Severity of 2009 Pandemic Influenza A (H1N1) Virus Infection in Pregnant Women.

Creanga AA, Johnson TF, Graitcer SB, Hartman LK, Al-Samarrai T, Schwarz AG, Chu SY, Sackoff JE, Jamieson DJ, Fine AD, Shapiro-Mendoza CK, Jones LE, Uyeki TM, Balter S, Bish CL, Finelli L, Honein MA.

OBJECTIVE: To examine 2009 H1N1 influenza illness severity and the effect of antiviral treatment on the severity of illness among pregnant women.

METHODS: We abstracted medical records from hospitalized pregnant (n=62) and nonpregnant (n=74) women with laboratory-confirmed 2009 H1N1 influenza in New York City, May through June 2009. We compared characteristics of pregnant and nonpregnant women and of severe and moderate influenza illness among pregnant women, with severe defined as illness resulting in intensive care admission or death.

RESULTS: The 2009 H1N1 hospitalization rate was significantly higher among pregnant than nonpregnant women (55.3 compared with 7.7 per 100,000 population). Eight pregnant (including two deaths) and 16 nonpregnant (including four deaths) cases were severe. Pregnant women represented 6.4% of hospitalized cases and 4.3% of deaths caused by 2009 H1N1 influenza. Only 1 in 30 (3.3%) pregnant women who received oseltamivir treatment within 2 days of symptom onset had severe illness compared with 3 of 14 (21.4%) and four of nine (44.4%) pregnant women who started treatment 3-4 days and 5 days or more after symptom onset, respectively (P=.002 for trend). Severe and moderate 2009 H1N1 influenza illness occurred in all pregnancy trimesters, but most women (54.8%) were in the third trimester. Twenty-two women delivered during their influenza hospitalization, and severe neonatal outcomes (neonatal intensive care unit admission or death) occurred among five of six (83.3%) women with severe illness compared with 2 of 16 (12.5%) women with moderate illness (P=.004).

CONCLUSION: Our findings highlight the potential for severe illness and adverse neonatal outcomes among pregnant 2009 H1N1 influenza-infected women and suggest the benefit of early oseltamivir treatment.

LEVEL OF EVIDENCE: II.

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