

Integrated model can predict preeclampsia in first trimester

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(HealthDay)—An integrated model for first-trimester screening of preeclampsia (PE) seems effective in a routine care setting, according to a study published in the March issue of the *American Journal of Obstetrics & Gynecology*.

Elena Scazzocchio, M.D., from the University of Barcelona in Spain, and colleagues used data from a cohort of 5,170 singleton pregnancies who underwent routine first-trimester screening (2009 to 2011) to examine the effectiveness of an integrated screening test to predict PE. Using maternal characteristics; levels of pregnancy-associated plasma protein-A and free β -human chorionic gonadotropin at 8 to 12 weeks; and blood pressure and uterine artery Doppler at 11.0 to 13.6 weeks, a predictive [model](#) of early- and late-onset PE was constructed.

The researchers found that 2.6 percent of participants developed PE (early PE, 0.5 percent; late PE, 2.1 percent). For early PE, the detection rates were 69.2 percent and 80.8 percent for false-positive rates of 5 and 10 percent, respectively (area under the curve, 0.95). For late PE, the corresponding detection rates were 29.4 and 39.6 percent, respectively (area under the curve, 0.71).

"First-trimester [screening](#) combining maternal factors with uterine artery Doppler, blood pressure, and pregnancy-associated plasma protein-A is useful to predict PE in a routine care setting," write the authors. The study was funded by Siemens Healthcare Diagnostics.

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