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## **STUDY CHARACTERIZES THE INCIDENCE AND EFFECTS OF SEVERE KIDNEY INJURY DURING PREGNANCY**

*Many affected women and their babies have good outcomes*

### **Highlights**

- In Ontario, Canada, the incidence of acute kidney injury that requires dialysis is 1 in 10,000 pregnancies.
- Otherwise healthy women who acquire a major pregnancy-related complication are at increased risk.
- In pregnancies affected by severe acute kidney injury, babies are at increased risk of having low birth weights or being born prematurely.

**Washington, DC (May 14, 2015)** — A new study indicates that severe kidney injury is rare during pregnancy, but it typically occurs in otherwise healthy women who acquire a major pregnancy-related complication. The study, which will appear in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN), also reveals the health outcomes of mothers and their babies following severe kidney injury during pregnancy.

Acute kidney injury (AKI), an abrupt or rapid decline in kidney function, is a rare but serious complication of pregnancy. Although previously considered a disappearing entity, the incidence and outcomes of AKI during pregnancy may be adversely impacted as increasing numbers of pregnancies are occurring in women who are older, have conditions such as diabetes or chronic kidney disease, or use reproductive technologies.

To determine the incidence, characteristics, and outcomes of women with AKI who require treatment with dialysis during pregnancy and the postpartum period, Ainslie Hildebrand, MD (Western University's London Health Sciences Centre, in Canada) and her colleagues analyzed information on all pregnancies from 1997 to 2011 in Ontario.

Among the major findings:

- The incidence of AKI that was treated with dialysis was 1 in 10,000 pregnancies (188 out of 1.9 million pregnancies).
- Most women who developed AKI during pregnancy had no recorded pre-existing health conditions; however, compared with healthy women, those with pre-

pregnancy hypertension, diabetes, chronic kidney disease, or lupus were at least twice as likely to develop AKI during pregnancy, and those with a major pregnancy-related complication such as preeclampsia were nearly 4-times more likely to develop AKI.

- Four percent of women who developed AKI during pregnancy died during the 15-year study, and 4% of survivors remained dialysis-dependent after delivery.
- Adverse perinatal outcomes—such as low birth weight and preterm birth—occurred in 35% of pregnancies affected by AKI; however there were no stillbirths and fewer than 5 neonatal deaths (<3%).

“This is the first population-based assessment of severe pregnancy-related AKI in a developed nation,” said Dr. Hildebrand. “Fortunately, with ongoing improvements in obstetrical care, maternal and perinatal mortality in this setting are largely avoidable.”

Study co-authors include Kuan Liu, MMath, Salimah Shariff, PhD, Joel Ray, MD, MSc, Jessica Sontrop, PhD, William Clark, MD, Michelle Hladunewich, MD, MSc, and Amit Garg, MD PhD.

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The article, entitled “Characteristics and Outcomes of AKI Treated with Dialysis during Pregnancy and the Postpartum Period,” will appear online at <http://jasn.asnjournals.org/> on May 14, 2015.

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