

# Division of Pediatric Nephrology

SSM Health Cardinal Glennon Children's  
Hospital, St. Louis, MO  
Saint Louis University School of Medicine



Saint Louis University School of Medicine pediatric nephrologists at SSM Health Cardinal Glennon Children's Hospital are known for their long-standing expertise in the care of newborns, infants and young patients diagnosed with a wide range of complex and chronic kidney diseases.

The team, all operating within the SLUCare Physician Group, has achieved excellent patient outcomes and is involved in a wide range of research efforts, particularly in the areas of renal transplant, chronic kidney disease, dialysis and hypertension.

## Chronic Kidney Disease

Nephrologists treat infants, children and adolescents diagnosed with a wide range of complex and chronic kidney diseases, including glomerular and tubular disorders, congenital and hereditary renal disorders, and renal diseases caused by systemic lupus erythematosus, diabetes or vasculitis. Common kidney problems such as urinary tract infections, hypertension related to kidney disorders and kidney stones also are treated.

Physicians are involved in the North American Pediatric Renal Trials and Collaborative Studies Network (NAPRTCS), a network of global research centers that fosters investigations and the sharing of best practices for the treatment of kidney diseases.

**Cure GN 2** — The NIH-funded Cure GN multicenter clinical trial is entering its second phase at SSM Health Cardinal Glennon in 2020. The study focuses on identifying the genetic basis for rare kidney diseases, such as focal segmental glomerulosclerosis (FSGS), and the biomarkers linked to treatment response.

**Whole Exome Sequencing** — At SSM Health Cardinal Glennon, translational research efforts currently under way include a whole exome sequencing analysis of fetuses suspected of having anomalies of the kidneys and urinary tract. For this study, fetal DNA is collected either through amniocentesis of the mother during pregnancy or after birth by cord blood samples, with the goal of identifying novel gene mutations that may be implicated in these renal birth defects. The hospital also is a participating site in a multicenter clinical trial, called the Genetics of the

## Kidney Transplant

The CMS-certified Renal Transplant Program consistently exceeds national benchmarks for patient outcomes. What's more, the program is recognized for **100% patient survival and graft survival rates** for the past three years by the Scientific Registry of Transplant Recipients, which collects data on more than 250 transplant centers in the United States. That success stands as a long-standing accomplishment of the program, one which has had excellent survival rates for more than a decade. The program offers both living and cadaver kidney transplants.

**Potential New Treatment of BK Viremia Virus** — A recent hospital-based study focused on the BK virus, which has long been known to be a cause of renal transplant failure, has found that weekly, subcutaneous injections at home of the immunoglobulin drug Hizentra appear to invoke a better response than the monthly IV infusions, which is the current standard of treatment. Larger and broader multicenter trials are needed to confirm this novel intervention.

**Effort Under Way to Reduce Transplant Rejection Rates** — Launching in early 2020 through the Improving Renal Outcomes Collaborative (IROC), is an effort to reduce transplant rejection rates through better adherence to medication regimes, which has been shown in a smaller study to reduce rejection rates by up to 50%. Approximately 40% of patients experience rejection that can be attributed to poor medication compliance. SSM Health Cardinal Glennon is one of only 31 IROC centers in the country. Earlier collaborative efforts have led to standardized blood pressure measurement practices and improved interventions to better control hypertension in young patients, which is a critical because uncontrolled hypertension increases the risk of cardiovascular death and/or graft loss in renal transplant patients. Publication of this research, which includes Division Director Craig Belsha, MD, as a contributing author, will appear in Pediatrics in spring 2020.

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Development of the Urinary Tract (DONUT) study, that involves whole exome sequencing analysis of infants and young children in the renal clinic to further differentiate gene mutations.

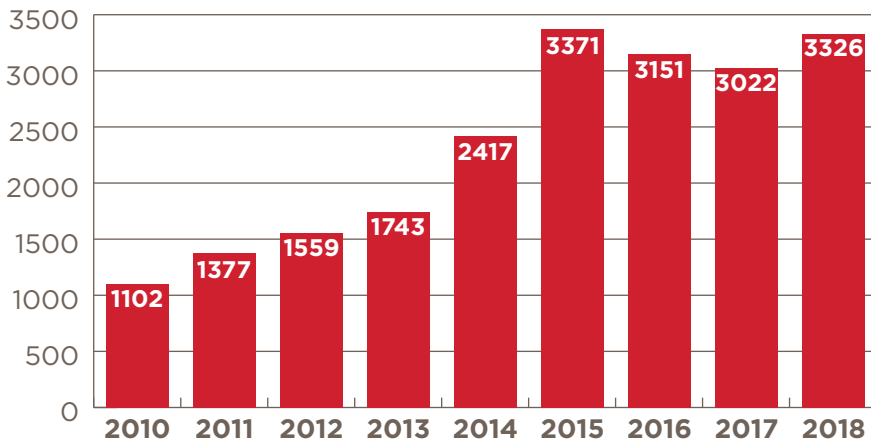
**Nephrotoxic Acute Kidney Injury (NAKI)** — New software developed at SSM Health Cardinal Glennon automatically flags pediatric patients placed on three or more nephrotoxic medications. Children on multiple medications are at higher risk for developing acute kidney injury (AKI), which can lead to chronic kidney disease. As part of its participation in the NAKI Pioneer Cohort through the Children’s Hospital Associations Solutions for Patient Safety, SSM Health Cardinal Glennon also has adopted new screening criteria to enhance early detection of AKI.

**Hyperkalemia** — SSM Health Cardinal Glennon is part of a multicenter clinical trial evaluating a new medication to treat hyperkalemia in children with chronic kidney disease.

## Infant and Pediatric Dialysis Services

SSM Health Cardinal Glennon was the first hospital in the St. Louis region to offer dialysis for infants with chronic kidney disease. Physicians and nursing staff have extensive expertise in caring for young patients needing dialysis. The outpatient hemodialysis and peritoneal dialysis program has been expanded to include the hospital’s inpatient and outpatient plasmapheresis service.

### Outpatient Dialysis Volume



**Reduction in BSI’s** — Pediatric nephrologists continue their efforts as part of the Standardized Care to Improve Outcomes in Pediatric Endstage Renal Disease (SCOPE) collaborative to prevent catheter-associated blood stream infections in dialysis patients. As of fall 2019, the collaborative reported a 67% reduction in hemodialysis blood stream infection rates in its initial participating SCOPE centers.

## Comprehensive Pediatric Hypertension Clinic

The pediatric nephrologists at SSM Health Cardinal Glennon oversee one of the region’s largest pediatric hypertension clinics. With new guidelines now in place for control of hypertension in children, the division has expanded its clinic services throughout the metropolitan St. Louis area. More than 250 children are enrolled in the clinic’s ambulatory blood pressure monitoring (ABPM) program.

## SLUCare Division of Pediatric Nephrology Faculty



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For physician consultations, contact the SSM Health Cardinal Glennon Access Center at **1-888-229-2424**.

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