

of professional fulfillment. Turnover is a critical concern, as nearly half of respondents do not plan to continue working as PCTs in the future. The researchers conclude: “Because of the critical, frontline role of dialysis PCTs in the care of patients receiving in-center hemodialysis, strategies to improve morale and reduce turnover are imperative” [Plantinga LC, et al. Professional fulfillment, burnout, and turnover intention among US dialysis patient care technicians: A national survey. *Am J Kidney Dis*, published online ahead of print March 9, 2023. doi: 10.1053/j.ajkd.2022.12.017; [https://www.ajkd.org/article/S0272-6386\(23\)00559-0/full-text](https://www.ajkd.org/article/S0272-6386(23)00559-0/full-text)]. ■

Hypertension Is Under-Recognized in Young Children with Kidney Diseases

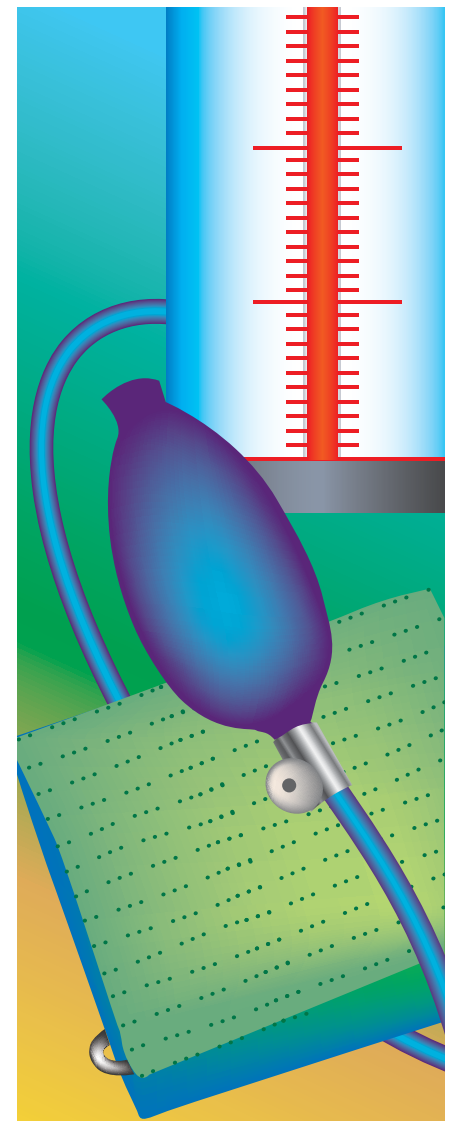
In pediatric patients with chronic kidney disease (CKD), hypertensive blood pressure (BP) is less likely to be recognized and treated in children aged <7 years compared with older age groups, reports a study in *Hypertension*.

The researchers examined the relationship between age and recognition and control of hypertension in 902 children with non-dialysis-dependent CKD, drawn from the Chronic Kidney Disease in Children (CKiD) study. A total of 3550 annual study visits were classified into groups corresponding to early, middle, and later childhood and adolescence:

aged 0 to <7 years, 7 to <13 years, and 13–18 years. Analyses adjusted for potential confounders, including sex, glomerular diagnosis, estimated glomerular filtration rate (eGFR), nephrotic-range urine protein:creatinine ratio, and obesity.

The median age was 10.73 in the cohort overall and 4.62 years in the aged 0 to <7 years group. The median eGFR was 49 mL/min/1.73 m² and was similar across age groups. A glomerular diagnosis was present in 47% of the oldest age group and 9% of the youngest.

Clinic BP readings consistent with stage 1 or 2 hypertension were present



Sparsentan is a CYP3A substrate. Concomitant use with a strong CYP3A inhibitor increases sparsentan C_{max} and AUC, which may increase the risk of FILSPARI adverse reactions.

Strong CYP3A Inducers

Avoid concomitant use with a strong CYP3A inducer. Sparsentan is a CYP3A substrate. Concomitant use with a strong CYP3A inducer decreases sparsentan C_{max} and AUC, which may reduce FILSPARI efficacy.

Antacids and Acid Reducing Agents

Administer FILSPARI 2 hours before or after administration of antacids. Avoid concomitant use of acid reducing agents (histamine H2 receptor antagonist and PPI proton pump inhibitor) with FILSPARI. Sparsentan exhibits pH-dependent solubility. Antacids or acid reducing agents may decrease sparsentan exposure which may reduce FILSPARI efficacy.

Non-Steroidal Anti-Inflammatory Agents (NSAIDs), Including Selective Cyclooxygenase-2 (COX-2) Inhibitors

Monitor for signs of worsening renal function with concomitant use with NSAIDs (including selective COX-2 inhibitors). In patients with volume depletion (including those on diuretic therapy) or with impaired kidney function, concomitant use of NSAIDs (including selective COX-2 inhibitors) with drugs that antagonize the angiotensin II receptor may result in deterioration of kidney function, including possible kidney failure. These effects are usually reversible.

CYP2B6, 2C9, and 2C19 Substrates

Monitor for efficacy of the concurrently administered CYP2B6, 2C9, and 2C19 substrates and consider dosage adjustment in accordance with the Prescribing Information. Sparsentan is an inducer of CYP2B6, 2C9, and 2C19. Sparsentan decreases exposure of these substrates, which may reduce efficacy related to these substrates.

P-gp and BCRP Substrates

Avoid concomitant use of sensitive substrates of P-gp and BCRP with FILSPARI. Sparsentan is an inhibitor of P-gp and BCRP. Sparsentan may increase exposure of these transporter substrates, which may increase the risk of adverse reactions related to these substrates.

Agents Increasing Serum Potassium

Monitor serum potassium frequently in patients treated with FILSPARI and other agents that increase serum potassium. Concomitant use of FILSPARI with potassium-sparing diuretics, potassium supplements, potassium-containing salt substitutes, or other drugs that raise serum potassium levels may result in hyperkalemia.

USE IN SPECIFIC POPULATIONS

Pregnancy

Risk Summary

Based on data from animal reproductive toxicity studies, FILSPARI can cause fetal harm, including birth defects and fetal death, when administered to a pregnant patient and is contraindicated during pregnancy. Available data from reports of pregnancy in clinical trials with FILSPARI are insufficient to identify a drug-associated risk of major birth defects, miscarriage, or other adverse maternal or fetal outcomes. In animal reproduction studies, oral administration of sparsentan to pregnant rats throughout organogenesis at 10-times the maximum recommended human dose (MRHD) in mg/day caused teratogenic effects in rats, including craniofacial malformations, skeletal abnormalities, increased embryo-fetal lethality, and reduced fetal weights. Advise pregnant patients of the potential risk to the fetus.

The background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Lactation

Risk Summary

There are no data on the presence of sparsentan in human milk, the effects on the breastfed infant, or the effect on milk production. Because of the potential for adverse reactions, such as hypotension in breastfed infants, advise patients not to breastfeed during treatment with FILSPARI.

Females and Males of Reproductive Potential

Based on data from animal reproductive toxicity studies, FILSPARI can cause fetal harm, including birth defects and fetal death, when administered to a pregnant patient and is contraindicated during pregnancy.

Pregnancy Testing

Verify that patients who can become pregnant are not pregnant prior to initiating FILSPARI, monthly during treatment, and one month after discontinuation of treatment. The patient should contact their physician immediately for pregnancy testing if onset of menses is delayed or pregnancy is suspected. If the pregnancy test is positive, the physician and patient must discuss the risks to their pregnancy and the fetus.

Contraception

Patients who can become pregnant who are using FILSPARI must use an effective method of contraception prior to initiation of treatment, during treatment, and for one month after discontinuation of treatment with FILSPARI to prevent pregnancy.

Pediatric Use

The safety and efficacy of FILSPARI in pediatric patients have not been established.

Geriatric Use

Of the total number of subjects in the PROTECT study of FILSPARI, 15 (7.4%) were 65 and older. No overall differences in safety or effectiveness were observed between these subjects and younger subjects.

Hepatic Impairment

Avoid use of FILSPARI in patients with any hepatic impairment (Child-Pugh class A-C) because of the potential risk of serious liver injury.

OVERDOSAGE

There is no experience with overdose with FILSPARI. Sparsentan has been given in doses up to 1600 mg/day in healthy volunteers, or up to 400 mg/day in patients. Overdose of FILSPARI may result in decreased blood pressure. In the event of an overdose, standard supportive measures should be taken, as required. Dialysis is unlikely to be effective because sparsentan is highly protein-bound.

PATIENT COUNSELING INFORMATION

Advise patients to read the FDA-approved patient labeling (Medication Guide).

Restricted access

Advise the patient that FILSPARI is only available through a restricted access program called the FILSPARI REMS.

As a component of the FILSPARI REMS, prescribers must review the contents of the FILSPARI Medication Guide with the patient before initiating FILSPARI.

Instruct patients that the risks associated with FILSPARI include:

Hepatotoxicity

Advise patients with symptoms suggesting hepatotoxicity (nausea, vomiting, right upper quadrant pain, fatigue, anorexia, jaundice, dark urine, fever, or itching) to immediately stop taking FILSPARI and seek medical attention.

Embryo-Fetal Toxicity

Educate and counsel patients who can become pregnant about the need to use reliable methods of contraception prior to treatment with FILSPARI, during treatment and for one month after treatment discontinuation. Patients who can become pregnant must have pregnancy tests prior to treatment with FILSPARI, monthly during treatment, and one month after treatment discontinuation.

Patients should be instructed to immediately contact their physician if they suspect they may be pregnant. Patients should seek additional contraceptive advice from a gynecologist or similar expert as needed.

Educate and counsel patients who can become pregnant on the use of emergency contraception in the event of unprotected sex or contraceptive failure.

Advise patients to contact their gynecologist or healthcare provider if they want to change the form of birth control which is used to ensure that another acceptable form of birth control is selected.

Advise the patient that FILSPARI is available only from certified pharmacies that are enrolled in the FILSPARI REMS.

Patients must sign the FILSPARI REMS Patient Enrollment Form to confirm that they understand the risks of FILSPARI.

Lactation

Advise patients not to breastfeed during treatment with FILSPARI.

Drug Interactions

Advise patients to inform their healthcare provider of all concomitant medications, including prescription medications, over-the-counter drugs, vitamins/supplements, herbal products, and grapefruit.

Other Risks Associated with FILSPARI

Inform patients of other risks associated with FILSPARI, including:

- Hypotension: Advise patients to remain hydrated.
- Hyperkalemia: Advise patients not to use potassium supplements or salt substitutes that contain potassium without consulting their healthcare provider.

This information is not comprehensive. Visit [FILSPARI.com](https://www.filspari.com) or call 1-877-659-5518 to obtain the full Prescribing Information.

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in 32% of children aged 0 to <7 years, 22% of the aged 7 to <13 years group, and 16% of the aged 13–18 years group. Among patients with hypertensive BP readings, rates of unrecognized, untreated hypertension were 45.8% in the youngest age group, 29.3% in the aged 7 to <13 years group, and 20.8% in the oldest age group. Rates of recognized but uncontrolled hypertension were 35.5%, 50.7%, and 56.4%, respectively.

On adjusted analysis, children aged 0 to <7 years were twice as likely to have unrecognized hypertensive BP (odds ratio [OR], 2.11) compared with patients aged 13–18 years. Among patients with unrecognized hypertension, the youngest age group was less likely to receive anti-hypertensive medication (OR, 0.51).

Younger age is associated with poorer control of hypertension among children with CKD. The new analysis finds an increased prevalence of undiagnosed, untreated hypertensive BP in patients with CKD aged 0 to <7 years compared with older children and adolescents. The researchers conclude, “Efforts to improve BP control in young children with CKD are needed to minimize development of cardiovascular disease and slow CKD progression” [Douglas CE, et al. Effect of age on hypertension recognition in children with chronic kidney disease: A report from the Chronic Kidney Disease in Children study. *Hypertension*, published online ahead of print March 2, 2023. doi: 10.1161/HYPERTENSIONAHA.122.20354; <https://www.aha-journals.org/doi/10.1161/HYPERTENSIONAHA.122.20354>]. ■