



Children's Physician Group – Nephrology Guidelines for Referrals

The Children's Care Network is pleased to launch a newly adopted referral guideline for the collaborative workup and diagnosis and management of children with nephrologic symptoms. The Children's Care Network would like to recognize and thank member physician, Dr. Laurence Greenbaum and the physicians of Children's Physician Group - Nephrology who served as primary developers of the guideline. As well, we thank the TCCN Primary Care Advisory Council and TCCN Quality Committee for their participation in the review and recommendation of this Clinical Practice and Referral Guideline.

We are excited to support another initiative that furthers our integrated approach to an important subset of patients within our network.

TCCN endorses the clinical content and patient referral and management concepts encompassed in this referral guide.

DISCLAIMER:

The recommendations contained herein are intended to be used as a guide and may not apply to all patients and all clinical situations. The ultimate judgment regarding any specific clinical procedure or treatment must be made by the healthcare professional in light of the circumstances presented by the patient. This material is not meant to be a replacement for training, experience, or studying the latest literature and information. Children's Healthcare of Atlanta, Inc. accepts no responsibility for any inaccuracies, information perceived as misleading, or adverse consequences from use of these materials. These materials are considered automatically withdrawn or invalid 5 years after publication, or once an update has been issued.

Children's Physician Group– Nephrology



Guidelines for referrals

Below is a list of guidance to follow when referring a patient for a consultation to Children's Physician Group–Nephrology, including our Hypertension Clinic. These are meant to be general recommendations. If you have specific questions, call **404-785-DOCS (3627)** and ask to speak with the on-call nephrologist. You will almost always be speaking directly with an attending nephrologist.

Conditions treated

- Congenital kidney problems
- Kidney failure
- Kidney stones
- Nephrotic syndrome
- Proteinuria
- Cystic kidney disease
- Glomerulonephritis
- Hematuria
- Hemolytic uremic syndrome
- Hypertension
- Enuresis
- Electrolyte abnormalities
- Urinary tract infections

Urgent referrals

If you feel your patient needs to be seen immediately, call **404-785-DOCS (3627)**. Some of these patients may warrant an emergency department (ED) evaluation or hospitalization. Generally, conditions that may warrant an ED evaluation, hospitalization or an urgent initial outpatient visit include, but are not limited to:

- **Nephrotic syndrome:** Urgent clinic if normal renal function and absence of severe edema; else, ED
- **Severe hypertension**
 - Stage 2 hypertension: Urgent clinic
 - Symptomatic hypertension or BP > 30 mm Hg above the 95% (>160/100 in adolescent): Discuss with nephrologist
- **Acute kidney injury:** ED
- **Acute glomerulonephritis:** Discuss with nephrologist
- **HSP with significant proteinuria:** Urgent clinic visit if renal function is normal; else, discuss with nephrologist; obtain random or first AM (preferred) urine protein/creatinine ratio, renal function panel* and microscopic urinalysis
- **Proteinuria with decreased kidney function:** Discuss with nephrologist
- **Gross hematuria:** Discuss with nephrologist if findings of glomerulonephritis (elevated BP, elevated creatinine or hypoalbuminemia); consider these labs if suspect glomerulonephritis: renal function panel*, urine protein/creatinine ratio C3, C4 and ANA; consider urine culture if fever, dysuria, frequency; consider ultrasound if significant pain, may need urgent evaluation (urology or ED)

Lab tests and ultrasound results that do not need a referral

- Elevated BUN/creatinine ratio: Normally elevated in young children due to low creatinine levels
- Elevated BUN and normal creatinine: Mildly elevated BUN is rarely concerning if the creatinine is normal
- Elevated urine protein if urine protein/creatinine ratio is normal (< 0.2 mg/mg or <200 mg/g)

- Isolated urine crystals, unless cystine or 2,8-dihydroxyadenine crystals
- Kidney length asymmetry if both kidneys are normal in length
- Duplicated collecting system is a normal variant unless associated with hydronephrosis, urine leaking due to ectopic ureter or dysplasia

Conditions that should be referred to other specialists

- Hydronephrosis → urology
- Symptomatic kidney stone that requires acute management
- Terminal (end-of-stream) visible hematuria → urology

Conditions where most referrals can be avoided with basic testing in your office

- **Microscopic hematuria:** Only refer if red blood cells are confirmed by microscopy on at least 2 to 3 occasions; consider kidney ultrasound prior to referral if hematuria is persistent.
- **Proteinuria:** Only refer after screening for benign orthostatic proteinuria by performing a first AM urine protein/creatinine ratio and demonstrating an elevated value (> 0.2 mg/mg or > 200 mg/g). If non-orthostatic proteinuria, consider renal function panel*, cholesterol, C3, C4 and ANA prior to referral.
- **Hypertension:** Confirm by obtaining auscultatory values using an appropriately sized cuff. Many overweight or muscular teenagers need a large adult cuff. For stage 1 hypertension, confirm 1 to 2 weeks before referring. Please refer patients with hypertension without associated significant kidney disease to our Nephrology Hypertension Clinic that has ambulatory blood pressure monitoring (ABPM) and nutritional support for patients.

Locations

Our main clinic is at the Center for Advanced Pediatrics with additional outreach clinics throughout metro Atlanta.

- **Center for Advanced Pediatrics:** 1400 Tullie Road NE, Atlanta, GA 30329
- **Children's at Northpoint:** 3795 Mansell Road, Alpharetta, GA 30022
- **Children's at Satellite Boulevard:** 2660 Satellite Boulevard, Duluth, GA 30096
- **Children's at Town Center Outpatient Care Center:** 605 Big Shanty Road, Kennesaw, GA 30144
- **Athens—St. Mary's,** 1230 Baxter Street, Athens, GA 30606
 - Refer directly to this monthly clinic via fax at 706-389-2801 or call 706-389-2800.

Tell your patient families to ask to be seen in the clinic that is most convenient for them. Note: Outreach clinics may not be able to accommodate urgent appointments since some are only held monthly or bi-monthly.

Referrals and medical records

- **Fax:** Fax referral requests to 404-785-9111.
- **Online:** Complete our online referral form at choa.org/referral.
- **accessCHOA:** Send referrals through accessCHOA.

Make sure all appropriate records are faxed to our office prior to the patient's visit. This includes the office visit notes, imaging studies (i.e. kidney ultrasound) and lab results. If lab results are pending at the time the records are faxed, send the complete results when available.

Note: In case of an urgent concern or emergency, call 911 or advise the family to go to the nearest emergency department right away.

**Renal function panel includes electrolytes, BUN, creatinine, albumin and phosphorus. CMP is an alternative, but it does not include phosphorus.*

