

# CT Children's CLASP Guideline

## Acute post-infectious glomerulonephritis (APIGN)

<b>INTRODUCTION</b>	<p>Acute post-infectious glomerulonephritis (APIGN) is the most common cause of acute nephritic syndrome in children. The clinical presentation of patients with APIGN ranges from asymptomatic microscopic hematuria to gross hematuria with accompanying symptoms including edema, acute kidney injury, hypertension, and proteinuria.</p> <p>This condition is most common in children between the ages of 5 and 12 years of age, and the incidence of APIGN is decreasing. There is no specific therapy to treat APIGN and most patients experience complete clinical recovery. Supportive management of APIGN should focus on treating volume overload and/or hypertension.</p>
<b>INITIAL EVALUATION AND MANAGEMENT</b>	<p><b>INITIAL EVALUATION:</b></p> <ul style="list-style-type: none"><li>▪ APIGN is suspected for any patient presenting with gross hematuria: coca-cola or tea colored urine<ul style="list-style-type: none"><li>– Urinalysis will have many RBC's +/- cellular casts and +/- protein</li><li>– There may be history of antecedent strep infection or illness</li></ul></li><li>▪ Assess for evidence of edema or hypertension with manual appropriate sized blood pressure cuff</li><li>▪ Obtain labs:<ul style="list-style-type: none"><li>– CBC, basic metabolic panel, C3, C4, serum albumin, streptozyme/ASO titer, throat culture, urinalysis, random urine protein, random urine creatinine</li></ul></li><li>▪ Isolated low C3 suggests APIGN (<i>See Appendix: Diagnostic Algorithm for Suspected APIGN</i>)</li></ul> <p><b>INITIAL MANAGEMENT:</b></p> <ul style="list-style-type: none"><li>▪ Encourage low Na diet for any child with hypertension (<i>see handout on 2017 JNC Hypertension Guidelines</i>) Excess salt can worsen swelling and cause other clinical symptoms; a low salt diet is encouraged to prevent swelling and edema (<i>see handouts: "Following a Low-Sodium Diet"</i>)<ul style="list-style-type: none"><li>–</li></ul></li><li>▪ If throat culture positive, treat with antibiotics to decrease family spread</li></ul>
<b>WHEN TO REFER</b>	<p><b>URGENT REFERRAL (same day):</b></p> <ul style="list-style-type: none"><li>▪ Evidence of fluid overload, hypertension greater than the 95%+12 mmHg, elevated creatinine from baseline</li><li>▪ Basic metabolic panel or serum albumin abnormal</li></ul> <p><b>ROUTINE REFERRAL (within 4 weeks):</b></p> <ul style="list-style-type: none"><li>▪ Persistent gross hematuria for &gt; 5 days with normal labs (not consistent with APIGN)</li><li>▪ Repeat C3 remains low after 6-8 weeks</li></ul>
<b>HOW TO REFER</b>	<p><b>Referral to Nephrology via CT Children's One Call Access Center</b> <b>Phone:</b> 833.733.7669 <b>Fax:</b> 833.226.2329</p> <p><i>Information to be included with the referral:</i></p> <ul style="list-style-type: none"><li>▪ Results of lab work</li><li>▪ Urinalysis</li></ul>
<b>WHAT TO EXPECT</b>	<p><b>What to expect from CT Children's Visit:</b></p> <ul style="list-style-type: none"><li>▪ Complete physical exam and history</li><li>▪ Microscopic analysis of urine</li><li>▪ Evaluation based on findings</li></ul>

**APPENDIX: Diagnostic Algorithm for Suspected APIGN**

