Military Children with Attention Deficit Hyperactivity Disorder (ADHD): Maximizing Adherence to Clinical Practice Guidelines

Purpose: This project evaluated the current status of provider adherence to the ADHD CPG in a military primary care pediatric clinic 24 months after a targeted educational intervention. In keeping with the quality improvement framework of “Plan-Do-Study-Act” (PDSA) this project additionally incorporated a session for providers to evaluate performance, identify existing barriers that impede guideline adherence, and address areas for improvement through the using evidence-based interventions.

Background and Significance: Despite almost two decades of clear clinical practice guidelines (CPG) for the diagnosis and treatment of attention deficit hyperactivity disorder (ADHD), provider adherence to the guidelines continues to vary greatly. While variable adherence to the CPG in non-military settings is widely reported in the literature, adherence in military settings has yet to be established. There are no published studies evaluating ADHD treatment or CPG adherence in the military sector, and recent clinical observations suggest that military children with ADHD may not be receiving evidence based care. Furthermore, children of military parents may be particularly vulnerable to fragmented care with frequent relocations and associated family stress.

Questions:
- What is the current status of provider adherence to the ADHD CPG?
- What are the outcomes of the PDSA session?

Design: Evaluation of guideline adherence was conducted using a quantitative, retrospective, chart review of a convenience sample (n=50) of patients over 62 encounters empaneled to the selected military pediatric clinic from January through December 2016. Records were reviewed using an adapted, validated abstraction tool (Vreeman, Madsen, Vreeman, Carroll, & Downs, 2006). Demographic data are reported to characterize the sample.

Findings: Each of the six guideline components were scored related to adherence to the ADHD CPG as follows: “met = 1”, “not met = 2”, or “N/A “= 3”. And reported as frequency distributions and percentages. The PDSA session guided by the use of an adapted guideline-based questionnaire, and findings reported.

Clinical Implications: This project, including the process and findings, addresses a critically important gap in the diagnosis and treatment of military children with ADHD. This pediatric population is particularly vulnerable due to transiency of care associated with frequent family relocations and parental deployments. Facilitating adherence to CPG will foster improved behavioral, academic, and physiological outcomes for these children and their families. Finally, this project highlights the important role of the DNP-prepared APRN in fostering evidence-based practice and outcomes improvement.

Kelley M. Henson, MSN, RN, CPNP-AC, IBCLC, Capt, USAF, NC, DNP Candidate, University of Virginia, School of Nursing, Charlottesville, VA, Kathryn B. Reid, PhD, RN, FNP-C, Associate Professor, University of Virginia, School of Nursing, Charlottesville, and Kenneth W Norwood, Jr., MD, Professor of Clinical Pediatrics, Department of Developmental Pediatrics, University of Virginia, Charlottesville, VA. Study IRB provided by: University of Virginia, Defense Health Agency, and the Air Force Human Research Protection Program.

NAPNAP Research Agenda Priority: Caring for children of military members and ADHD.
Introduction

• ADHD prevalence is 11% in the U.S. with a 5% annual increase
• CPG adherence is variable among providers
• No published studies evaluating ADHD treatment in the military setting
• Military children may be more vulnerable to care fragmentation due to frequent relocations, parental deployment, and family stress

Methods and Materials

• Retrospective chart review of a convenience sample (n=50, 62 encounters)
• Key components of the guideline are deemed “Met” if addressed in >/= 80% of the encounters.
• Barrier themes and recommendations for improvement identified/discussed during QI session.

Table 1: Symptomatic Chart Review.

<table>
<thead>
<tr>
<th>Component</th>
<th>Met</th>
<th>Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication management</td>
<td>89.5%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Medication side effects</td>
<td>90.7%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Behavior therapy</td>
<td>4.8%</td>
<td>95.2%</td>
</tr>
</tbody>
</table>

Results

Medication management overall was a strength for the providers. Both the medication formulation and dose were consistent with the recommendations for stimulant initiation (17/19, 89.5%). Titration based on effect (93%) while monitoring side effects (90.7%) was also consistent among all providers. Behavior therapy was addressed specifically in very few encounters (3/62, 4.8%), although a high percentage of encounters assessed history of counseling (80.6%). Providers contacted with a member from the school team was not noted in any encounters, however, 41.9% (26/62) of encounters noted IEP status and 95.2% asked about school performance. No follow-up encounters documented use of a validated rating scale. Care coordination (EFMP status) was addressed in 93.5% of encounters.

PDSA Session Findings

• Getting the paperwork back can be difficult, especially when families are stressed.
• Self referrals to psychologists for evaluation are being covered by TRICARE.
• Lack of quality resources/mental health professionals that accept TRICARE.
• Access is limited in the pediatric clinic; it often takes 2-3 weeks to get an appointment with PCM. Providers are able to offer fewer appointments due to military requirements.
• Providers unaware that follow-up scales are recommended in guideline

Barriers

• Free mental health visits, medical visits, and medications.
• Family members with stable income and overall emphasis on health.
• Military Family Life Consultant and EFMP school liaisons are available to help identify local resources.

Actions Identified for Improvement

• Implement routine use of Vanderbilt ADHD Follow-up Scales
• Revise ADHD AHLTA template to include key guideline components

Conclusion

Evaluation of provider adherence to the AAFP CPG for ADHD in a military pediatric clinic reveals that 2/6 key components are consistently met among the 62 encounters reviewed. Most patients are receiving initial evaluations from a psychologist in the community rather than in the medical home. Medication management is consistent with the guideline, although validated follow-up scales are not being utilized to assess the effectiveness of treatment and/or medication side effects. While providers are routinely inquiring about a history of counseling, behavior therapy is not addressed specifically. Standardizing documentation templates is identified as an intervention to improve documentation of provider adherence to the CPG. Implementation of the use of Vanderbilt follow-up rating scales are an acceptable practice change to the providers to improve guideline adherence during follow-up visits. Providers also plan to educate clinic nurses, referral specialists, and patients to visit the PCM first for concerns related to core ADHD symptoms to improve initial visit rate.

Kelley M. Henson, Capt., USAF, NC, MSN, RN, CPNP-AC, IBCLC, Kathryn B. Reid, PhD, RN, FNP-C, Kenneth W Norwood, Jr., MD

University of Virginia