

 **Long-term prophylactic mupirocin useful in reducing *S.aureus* colonization and infection in high-risk neonates** (*J Perinatol.* 201; DOI: 10.1038/jp.2012.102).

This study to examine the use of long-term prophylactic mupirocin was done in USA as part of a comprehensive strategy in reducing *S. aureus* colonization and infection in a neonatal intensive care unit (NICU). Twice daily mupirocin was applied to all infants admitted to the NICU throughout hospitalization starting in 2004, which is now a routine. This twice daily application of mupirocin regime was stopped in between to study the results. During the study period, there were three distinctive *S. aureus* outbreaks, the first being a methicillin-resistant strain in July 2004. After implementation of daily mupirocin, the outbreak was eradicated and the rate of *S. aureus* infection significantly decreased. Mupirocin was discontinued in March 2005 followed by a methicillin-sensitive *S. aureus* outbreak in November 2005. In December 2005, mupirocin was reinstated again, significantly reducing *S. aureus* infections with zero isolates resistant to mupirocin. Although controversial, this study has established clear benefits of prophylactic mupirocin in all NICU infants. Mupirocin has acted as a barrier to colonization and markedly decreased *S. aureus* infection rates over a 5-year period.

 **Asthma worsens with step-off therapy** (*Arch Intern Med* 2012; DOI: 10.1001/archinternmed.2012.3250).

This review from Canada suggest that discontinuation of long-acting beta-agonist (LABA) therapy in patients whose asthma is well controlled is associated with a worsening of symptom control and quality of life. In 2010 the FDA determined that LABAs should carry a black box warning and advised that discontinuation of the drugs should begin once patients gain and maintain adequate asthma control. In contrast to FDA recommendations of stepping off [long-acting beta-agonist] therapy when asthma is controlled, this study supports the continued use of these agents to maintain asthma control. The final word is not yet out; the controversy should add to more research in the area.


 **Diagnosis and management of childhood obstructive sleep apnea syndrome – a new guideline** (*Pediatrics* 2012, DOI: 10.1542/peds.2012-1671).

This revised clinical guideline from American Academy of Pediatrics (AAP) provides recommendations for the diagnosis and management of the obstructive sleep apnea syndrome (OSAS) in children and adolescents.

1. All children/adolescents should be screened for snoring.
2. Polysomnography should be performed in children/adolescents with snoring and symptoms/signs of OSAS; if polysomnography is not available, then alternative

diagnostic tests or referral to a specialist for more extensive evaluation may be considered.

3. Adenotonsillectomy is recommended as the first-line treatment of patients with adenotonsillar hypertrophy.
4. High-risk patients should be monitored as inpatients postoperatively.
5. Patients should be reevaluated postoperatively to determine whether further treatment is required. Objective testing should be performed in patients who are high risk or have persistent symptoms/signs of OSAS after therapy.
6. Continuous positive airway pressure is recommended as treatment if adenotonsillectomy is not performed or if OSAS persists postoperatively.
7. Weight loss is recommended in addition to other therapy in patients who are overweight or obese.
8. Intranasal corticosteroids are an option for children with mild OSAS in whom adenotonsillectomy is contraindicated or for mild postoperative OSAS.

 **Serum vitamin D levels are lower in children and adolescents with type 1 diabetes** (*Pediatric Diabetes* 2012; DOI: 10.1111/j.1399-5448.2012.00890.x)

Vitamin D is synthesized in the skin through the action of UVB radiation (sunlight); and 25-hydroxy vitamin D (25OHD) is measured in serum as a marker of vitamin D status. Several studies, mostly conducted in high latitudes, have shown an association between type 1 diabetes mellitus (T1DM) and low serum 25OHD where sunlight is not available in abundance. This interesting study confirmed this even in Australian children in spite of abundant sunlight. The authors found serum 25OHD levels to be significantly lower in children with type 1 diabetes compared with children without diabetes. These levels remained lower after adjustment for covariates, including mean ambient ultraviolet radiation index, as the majority of participants with type 1 diabetes had their vitamin D measured in the fall and winter, whereas the control patients were assessed in the spring and summer months. Children with type 1 diabetes had lower self-reported levels of outdoor exposure and mean ultraviolet exposure; however, there were no significant differences between the 2 groups in terms of vitamin D receptor polymorphisms, which have been linked with autoantibodies and diabetes-related complications. This study shows that even at relatively low latitude in an environment of abundant sunlight exposure, pediatric patients with diabetes have low vitamin D compared to their peers, the effect being more marked in those newly diagnosed, but still present in those with established diabetes.

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