

 **Acellular pertussis vaccine protects against disease but fail to prevent infection and transmission** (*Proc Natl Acad Sci. 2013; doi: 10.1073/pnas.1314688110*)

Pertussis has re-emerged as an important public health concern and replacement of older whole-cell vaccines (wP) by acellular pertussis vaccines (aP) is believed to be one of the reasons. In this study on non-human primates, it was found that those vaccinated with aP were protected from severe symptoms but not infection and readily transmitted *B. Pertussis* to contacts. Vaccination with wP and previous infection induced a more rapid clearance compared with naïve and aP-vaccinated animals. While all groups possessed robust antibody responses, T-cell memory suggested that aP vaccination induced a suboptimal immune response that was unable to prevent infection. These data provide a reasonable explanation for pertussis resurgence and suggest that attaining herd immunity will require the development of improved vaccination strategies that prevent *B. pertussis* colonization and transmission.


Recently IAP has recommended wP based on various scientific inputs. This recent study from United States endorses the same.

 **Response to a single question may flag suicide risk** (*Psychiatr Serv. 2013;64:1195-1202*)


We frequently encounter patients reporting thoughts of death or suicide while we use standard depression questionnaires like Patient Health Questionnaire for depression (PHQ-9). In this study, electronic records from a large integrated health system were used to link PHQ-9 responses from outpatient visits to subsequent suicide attempts and deaths. Responses to item-9 of the PHQ-9 remained a strong predictor of suicide attempt. Cumulative risk of suicide death over one year increased from 0.03% among those reporting thoughts of death or self-harm ideation “not at all” to 0.3% among those reporting such thoughts “nearly every day”. This excess risk emerged over several days and continued to grow for several months, indicating that suicidal ideation was an enduring vulnerability rather than a short-term crisis. This may be a very important diagnostic tool for all those involved in the care of children suffering from depression to prevent such suicidal behaviour.

 **Novel use of rituximab for steroid-dependent nephrotic syndrome in children** (*Am J Nephrol. 2013;38:483-8.*)

Though rituximab (RTX) is effective for childhood steroid-dependent nephrotic syndrome (SDNS), an established regimen does not exist. The relapses tend to occur when the peripheral blood B-cell count rises again after 3 months of single RTX infusion. This study was conducted to clarify whether the long-term remission of SDNS can be obtained by repeated RTX administrations. RTX was administered 4 times at 3-month intervals at 375 mg/m<sup>2</sup>/time with no serious side effects. Authors conclude that repeated RTX may be a useful therapeutic option for childhood SDNS.

 **Lean mass, not fat mass, is associated with lung function in male and female children with asthma** (*Pediatr Res. 2013; doi: 10.1038/pr.2013.181*)

This study investigated whether BMI z-score and body composition were associated with respiratory function in asthmatic children. Authors reported that lean mass, not fat mass, was associated with lung function in children with asthma. The positive association between BMI z-score and respiratory function in male children was driven by lean mass. Although body weight can be easily monitored in the clinical setting, body composition can provide important information about the lung function in asthmatic boys.

 **Hypovitaminosis D and nocturnal hypertension in obese children: An interesting link** (*J Hum Hypertens. 2013; doi: 10.1038/jhh.2013.122.*)

In adults, low levels of vitamin D are associated with hypertension. The aim of this study was to evaluate the relationship between 24-h blood pressure (BP) patterns and vitamin D levels in obese children. Vitamin D correlated negatively with 24-h and night-time systolic Ambulatory BP (ABP), 24-h systolic ABP load, night-time systolic and diastolic ABP load, and 24-h and night-time systolic ABP index. The percentage of subjects with pathological 24-h systolic BP (SBP) load, and night-time SBP load, diastolic BP (DBP) load, SBP index and DBP index increased progressively as the vitamin deficiency categories increased. Low levels of vitamin D in obese children were associated with a higher BP burden, especially at night.

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