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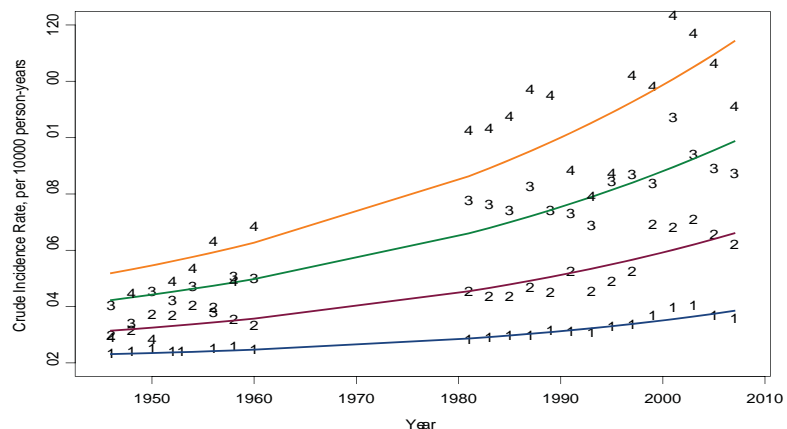
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HZ incidence rates increase: Is this due to varicella vaccine use in children?

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Herpes zoster has increased 6-fold over the past 65 years perhaps due to greater care seeking for HZ when oral antiviral therapy became available (1980s), wide spread use of the childhood varicella vaccine (after 1996), increasing use of immunosuppressive therapy and the aging of the population. This is a population based retrospective observational study of the incidence of herpes zoster virus infection confirmed by medical record review to look for any inflection points in the temporal HZ rates related to the timing of the above changes in HZ care. This is possible due to the resources of the Rochester Epidemiology Project that provides information on all clinical diagnoses of all patients seen within Olmsted County, MN since 1902. Results: Over the time period 10,852 HZ incidence cases were confirmed by medical record review. The temporal trend in incidence rate based on per 100,000 individuals is shown in the graph. The temporal trends are similar by age and gender across the period. No inflection points related to the introduction of antiviral medications (1980-1983), or to the widespread use of childhood varicella vaccine (1997 to 1998) are seen. (See graph) The percent of cases in people with immune-suppression increased only three fold from 2.4% (1945-1960) to 7.0% (1991-2007). Conclusions: None of the commonly suggested causes for temporal increases in herpes zoster including widespread use of the varicella vaccine in children can be substantiated. The cause remains unknown but of significant importance in attempts to stem this six fold increase in disease.



Biography

Professor Barbara Yawn is a family physician researcher with continuing interest in the natural history, burden, complications and prevention of VZV disease, especially HZ. She has authored over 240 peer reviewed papers and has recently been named as the editor in chief of the new Shingles and PHN journal scheduled to publish its first issue in January 2012. She is director of research at the Olmsted Medical Center and a Professor of Family and Community Health at the University of Minnesota, USA.