

# Acquisition of serum isotype-specific and G type-specific antirotavirus antibodies among children in day care centers

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The acquisition of serum antirotavirus antibodies among children in day care centers was monitored through two rotavirus seasons. Twenty-six children were monitored daily for diarrhea and weekly for stool rotavirus excretion through a rotavirus season of infections with serotype G1 and a successive season of infections with both G1 and G3. Sera were collected before and after each rotavirus season and tested for antirotavirus IgA and IgG and for G type-specific blocking antibody. The prevalence of protective serum IgA and IgG titers increased from 36% and 45% before Season 1 to 77% and 96% after Season 2, respectively ( $P < 0.02$  and  $0.001$ ). G type-specific antibodies also increased (G1,  $P < 0.001$ ; G2,  $P = 0.005$ ; G3,  $P = 0.003$ ; G4,  $P = 0.006$ ), including for noncirculating types. Homotypic and heterotypic antibodies increased as the number of rotavirus infections experienced by a child increased. The group of children with two proven infections developed protective isotype-specific and G