CVD is leading cause of death worldwide, reports relate CMV infection in transplant recipients with >60% prevalence among adults in US.

Methods

Four databases searched in 2014 using strategy:

CMV OR cytomegalovirus*  AND  (CVD outcomes)

Results

Among 2,658 articles identified, 25 investigated association between CMV and CVD.

CMV seropositivity was not associated with CVD, but interpretation is difficult given heterogeneity in CMV assays, seropositivity cut-offs, as well as varying degree of statistical adjustment.

For CMV antibody titres, a large, robust, population-based study indicated increased risk in CVD among participants with higher titre of CMV antibodies.

But given limitations (e.g., indirect measurement of CMV exposure and residual confounding) cannot infer causality.

However, given potential public health relevance (high CMV seroprevalence and CVD risk), need to examine:

Whether CMV IgG titres correlate with CMV infection reactivation frequency/intensity

Studies in different cohorts, with adequate power and adjustment

References