Cost-effectiveness analyses were performed to determine the clinical-economic value of caspofungin therapy vs. amphotericin B and fluconazole for the treatment of invasive candidiasis in critical care units and in intensive care units (ICU).

OBJECTIVES: To evaluate the clinical-economic value of caspofungin therapy vs. amphotericin B and fluconazole for the treatment of invasive candidiasis in critical care units and in intensive care units (ICU).

METHODS: A computer simulation model was developed to predict costs and health outcomes for a PHN1 vaccine program using inactivated vaccine compared to no vaccine. The model was targeted to the population included hypothetical cohorts of persons aged 6 months and older stratified by age and risk. Probabilities, costs and quality of life outcomes were derived from emerging primary data on non-H1N1 infections in the US, published and unpublished data for seasonal and PHN1 illnesses, supplemented by expert opinion. The analysis used a one-year time horizon for most endpoints but also included longer-term costs and consequences of long-term sequelae and deaths. A societal perspective was used. The main endpoint was the incremental cost-effectiveness ratio in dollars per quality-adjusted life year (QALY) gained. Sensitivity analyses were conducted to evaluate the robustness of results as parameters were varied over plausible ranges, including a scenario analysis to evaluate the effectiveness of a vaccine assuming a hypothetical high week flu season and normal epidemic curve of illness. RESULTS: For vaccination initiated prior to the outbreak, PHN1 vaccination was cost-saving for persons 6 months to 64 years with high risk conditions assuming a 15% overall attack rate. For those without high risk conditions, PHN1 vaccination was cost-saving but resulted in a minor cost-effectiveness ratio ranging from $3,990 to $5,090/QALY depending on age and risk. Endpoints.

Resources were sensitive to the number of vaccine doses needed, costs of vaccination, illness rates, and timing of vaccine delivery. Cost-effectiveness ratios increased substantially if vaccination were initiated after the 10th week of the start of a hypothetical 16-week epidemic. CONCLUSIONS: Vaccination for PHN1 for children and working-age adults is cost-effective compared to other preventive health interventions under a wide range of scenarios.