The Cost Effectiveness of Introducing an Adjuvanted Tivalent Subunit Influenza Vaccine for Adults ≥65 Years of Age in Argentina

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BACKGROUND

- Seasonal influenza (TIV) vaccination of adults ≥65 years of age is mandatory in Argentina. Despite this mandate, influenza infection continues to have severe consequences.
- Surveillance in Argentina has reported an influenza-like illness rate of 3,500/100,0001, a 15.5/100,0002 rate of serious complications, and a 0.3/100,0003 fatality rate. These data suggest the need for effective seasonal influenza vaccines.
- Standard influenza vaccine (TIV) provides minimal protection in elderly subjects, with vaccine effectiveness of 35% to 50% with current vaccines.
- By contrast, adjuvanted seasonal influenza vaccines, such as MF59 (GlaxoSmithKline Biologicals Ltd., Rixensart, Belgium), have demonstrated increased immunogenicity and protection in elderly subjects.
- Although MF59 is based on the non-adjuvanted seasonal subunit vaccine Agriflu, to which the adjuvant is applied, the majority of vaccines using MF59 emulsion have shown increased immunogenicity.

METHODS

- To compare the cost-effectiveness of an adjuvanted tivalent subunit (aTIV) vaccine to a non-adjuvanted tivalent subunit (TIV) in adults ≥65 years of age.

STUDY AIM

- To assess the economic outcomes of introducing an adjuvanted tivalent subunit influenza vaccine in adults ≥65 years of age.

METHODS CONT'D

- Model inputs include attack rates, influenza vaccine coverage rate and co-nasal predominant probabilities.
- Deterministic and probabilistic sensitivity analysis (PSA) were performed using randomly drawn parameters to evaluate the cost-effectiveness of the aTIV vaccine relative to TIV in elderly subjects (Table 1).

RESULTS

- The base case compares current Argentinean vaccination strategy (TIV) with aTIV in patients ≥65 years of age.
- The model uses aTIV in the population to reduce the number of expected cases of influenza by 20%, with attendant reductions in QALY gains and hospitalizations.
- The base case is shown in Table 3. It shows that aTIV is highly cost-effective relative to TIV.

CONCLUSIONS

- The analysis suggests that introducing aTIV in Argentina would be highly cost-effective in providing additional health gains while reducing health-care utilization.
- The ICER is robust to sensitivity and scenario analyses and significantly below the Argentinean 2015 GDR ($14,468).

REFERENCES