VaxArray Seasonal Influenza Assessment of Adjuvant-containing Vaccine formulation
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Introduction & Background

WHO guidelines dictate flu vaccine producers determine vaccine potency and stability prior to and as a function of time of release. Currently, the gold standard for the measurement of hemagglutinin (HA) concentration is the single radial immunodiffusion (SRID) assay. This labor and reagent intensive method is not sufficiently sensitive and is not compatible with all common adjuvants that are known to enhance vaccine performance. Vaccine manufacturers require more rapid and accurate tools to characterize the potency and stability of their products. Therefore, the new alternative potency assay VaxArray Influenza (VXI) seasonal hemagglutinin (sHA) manufactured by InvDev, Inc. was used to quantify potency in quadrivalent adjuvant-containing vaccines. The accuracy of VXI with vaccines that included different concentrations of the nasal adjuvant EndocineTM (Eurocine Vaccines AB) was assessed and compared to SRID values.

Impact of adjuvant on VXI analysis

Quantification of 1% and 2% adjuvant-containing Vaccine using VXI and SRID

Conclusions

We established that the VaxArray Seasonal Influenza potency assay performs well with quadrivalent vaccine formulations containing either 1% or 2% EndocineTM adjuvant, while SRD analysis failed to analyze vaccine formulation containing 2% EndocineTM. This experiment demonstrated that VXI exhibited an accurate quantification of HA with quadrivalent vaccines in only one VaxArray run, good overall productivity between different users and higher assay sensitivity when compared to SRD. This work establishes VXI as a promising alternative to SRD.

VXI related literature


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