Pandemic Influenza Vaccine Stockpile

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Pre-Pandemic Vaccines for Pandemic Preparedness

Procure Pre-pandemic Vaccines and Adjuvants

Monitor Stability of Vaccines & Adjuvants Tests & clinical trials

Flexible & Optimized Stockpile: Antigen +Adjuvant Studies

Broader Protection: Induction of cross-protective immunity
Program Overview

- Disease outbreak/surveillance
  - WHO/ERL CVV development
- Vaccine Seed Development
- Vaccine Bulk Production
- Vaccine/Adjuvant Stockpile and Stability
- ERL Potency Reagents
- Vaccine final container

- Pandemic
  - 20M First Responders
  - Clinical Trial
  - Pre-EUA

Procure and Test Pre-Pandemic Vaccines

- **HxNc Human Infection**
  - CVV Development (CDC)
  - Potency Assay Reagents Preparation & Calibration (FDA)

- **Vaccine Procurement and Manufacturing (BARDA)**
  - Vaccine Seed Development
  - Bulk Production
  - Formulation/Fill/Finish
  - Clinical Studies

**BARDA**
**NIH**
**Companies**

Monitor Stability

1st BARDA sponsored clinical study: A randomized, double-blinded, Phase 2 clinical trial to assess safety and immunogenicity of long-term stored A/Vietnam/1203/2004 (H5N1) vaccine administered with and without adjuvant

Submitted for publication
Broader Protection: Induction of Cross-protective Immunity

Vaccination strategy for induction of cross-protective immunity using stockpiled influenza vaccines

Figure courtesy of Derek Smith (U. Cambridge)

Peng et al, 2017. Scientific Reports
Flexible and Optimized Stockpile

MULTIPLE VACCINES

- EGG BASED
- CELL BASED
- ADJUVANTS
- LIVE ATTENUATED
- RECOMBINANT

MIX AND MATCH STUDIES

Vaccine A–B–C

- A+X
- C+Y
- B+Y
- A+Y
- C+X

Adjuvant X–Y

...more than a Stockpile

- Vaccine properties: Production, Yield, Stability, Storage conditions.
- Performance/Immunogenicity: Mix & Match vaccine/adjuvant combination; safety and immunogenicity of LT stockpiled vaccines; heterologous prime boost studies
- A national asset!
How to contact BARDA

**Medical Countermeasures.gov**
Portal to BARDA: Register to request a TechWatch meeting!

**www.fbo.gov/** ("FedBizOpps")
Official announcements and info for all government contract solicitations

**https://www.phe.gov/about/BARDA/Pages/default.aspx**
Program description, information, news, announcements

**www.drive.hhs.gov**
DRIVE questions

**https://www.usajobs.gov/**
Join the team!