Emergency Use Review of Vaccines: What it means and How it may Impact future approvals

Keynote Address

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Emergency Use Authorization

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**Information Disclaimer**

The information provided is only intended to be general summary information. It is not intended to take the place of either the written law or regulations.

**Opinion Disclaimer**

The comments and opinions expressed are those solely of the presenter. They are not intended to take the place of either the written law or regulations.
Background
Background

1906: Pure Food and Drug Act

First modern Food and Drug law

No formal approval necessary to market drugs

No requirements of safety/ effectiveness

Action was *ex post facto* to marketing

Background

1937: Elixir of Sulfanilamide

105 people (mostly children) died of poisoning

https://www.fda.gov/about-fda/histories-product-regulation/sulfanilamide-disaster
Background

1938: Food Drug and Cosmetic Act

– Required pre-market approval for drug products
  • New Drug Application (NDA)
    – Chemistry of product
    – Measures to ensure purity, reproducibility, stability
    – Animal and clinical studies of safety
  • Factory inspections
  • Regulation of medical devices and cosmetics

Background

1962: Thalidomide

1962: Kefauver-Harris Amendment

Efficacy in clinical trials

Background

Medical Device Amendment 1976

– 1973: failings of pace makers
– 1975: hearings on Intra Uterine Devices cause harm

MDA 76
Requires pre-market, post-market and clinical trial controls

Background

1976: Medical Device Amendment
Requires pre-market, post-market and clinical trial controls

1990: Safe Medical Device Act
Requires facilities to report Adverse Events
Authorizes ordered recalls
Created HUD/ HDE programs

Today

FDCA requires pre-approval of most drugs and certain medical devices

Requires FDA-approved marketing or research permit be obtained before commodities, e.g. drugs, vaccines, medical devices move in interstate commerce
Public Health Emergency

“The best laid plans of mice and men...”

-Robert Burns, 1785-
1. A determination by the Secretary of Homeland Security that there is a domestic emergency, or a significant potential for a domestic emergency, involving a heightened risk of attack with a, chemical, biological, radiological, or nuclear (“CBRN”) agent or agents
2. The identification of a material threat by the Secretary of Homeland Security pursuant to section 319F-2 of the Public Health Service (PHS) Act sufficient to affect national security or the health and security of United States citizens living abroad.
3. A determination by the **Secretary of Defense** that there is a military emergency, or a significant potential for a military emergency, involving a heightened risk to United States military forces, including personnel operating under the authority of title 10 or title 50, of attack with (i) a biological, chemical, radiological, or nuclear agent or agents; or (ii) an agent or agents that may cause, or are otherwise associated with, an imminently life-threatening and specific risk to United States military forces
4. A determination by the Secretary of Health and Human Services that there is a public health emergency, or a significant potential for a public health emergency, that affects, or has a significant potential to affect, national security or the health and security of United States citizens living abroad, and that involves a CBRN agent or agents, or a disease or condition that may be attributable to such agent or agents.
Authority

The Secretary of the Health and Human Services (HHS) has authority to declare a public health emergency, pursuant to

*Public Health Service Act, Sec. 319: Public Health Emergencies*

https://www.govinfo.gov/content/pkg/COMPS-973/pdf/COMPS-973.pdf

FDA Commissioner, acting under delegated authority, may issue an Emergency Use Authorization (EUA) pursuant to

*Federal Food Drug and Cosmetic Act, Sec 564: Authorization for Medical Products for Use in Emergencies*

https://www.govinfo.gov/content/pkg/COMPS-973/pdf/COMPS-973.pdf
2013 Pandemic and All-Hazards Preparedness Reauthorization Act

- Amended Sec 564, wherein the Secretary is no longer required to make a formal determination under Sec 319 of PHSA

- Allows FDA to issue an EUA based on the HHS secretary determination of a potential health emergency involving CBRN threat (as opposed to actual)

- Expands time period for collection and analysis of data about medical counter measures (MCM) safety and effectiveness for a period beyond the EUA

- FDA may categorize the complexity of an in vitro diagnostic device to indicate if test can be performed at point-of-care
2013 Pandemic and All-Hazards Preparedness Reauthorization Act

- Allows Fed/State/Local authorities to pre-position MCMs in anticipation of FDA’s approval, clearance or EUA
- New authorities for emergency use of medical products
- Expiration dating extensions
- Provisions focusing on FDA’s interactions with Gov and industry to develop MCMs

2019-nCOV/ SARS-CoV-2

January 31, 2020
• Secretary made a determination of a PHE pursuant to PHSA, Sec 319

February 4th, 2020
• Secretary of HHS made a determination of a PHE, pursuant to FDCA, Sec 364

March 2nd, 2020
• Emergency Use Authorization for respiratory protective devices,
  https://www.federalregister.gov/documents/2020/03/10/2020-04823/emergency-use-declaration

March 27th, 2020
• Emergency Use Authorization for drugs/ vaccines/ biological products
Emergency Use Authorization

**What it is**

1. The emergency use of an **unapproved** drug, an unapproved or uncleared device, or an unlicensed biological product

2. An **unapproved use** of an **approved** drug, approved or cleared device, or licensed biological product

**What it is not**

1. EUA is not a method to bypass review

2. EUA is not an expedited review for non-PHE products

Emergency Use Authorization of Medical Products and Related Authorities

Guidance for Industry and Other Stakeholders

U.S. Department of Health and Human Services
Food and Drug Administration
Office of the Commissioner
Office of the Chief Scientist
Office of Counterterrorism and Emerging Threats

January 2017

Procedural
OMB Control No. 0910-0595
Expiration Date 08/31/2022
See additional FDA statement in section 1A of this guidance.
EUA for SARS-CoV-2

Vaccines
– Three (3)

Drug/Biological therapies
– Eight (8) products

Medical Devices
– Multiple (x)

EUA for COVID-19 Vaccines

Clinical Trials started ~June 2020

– Phase 1/2/3

– Sponsor may submit EUA request with Phase 3 data analysis based on *a priori* safety metrics
  • Up to 2 months follow-up post vaccine
  • 3,000 plus participants

– Manufacturing data ensuring quality and consistency

https://www.fda.gov/vaccines-blood-biologics/vaccines/emergency-use-authorization-vaccines-explained
EUA for COVID-19 Vaccines

Vaccine and Related Biological Products Advisory Committee

– Public Meetings
  • Conflicts of Interest
  • Safety and Efficacy
  • Manufacturing controls

https://www.fda.gov/vaccines-blood-biologics/vaccines/emergency-use-authorization-vaccines-explained
EUA for COVID-19 Vaccines

Vaccine manufacturers include EUA plans for continued monitoring:

- Safety
- Mortality
- Hospitalizations
- Serious/ clinically significant Adverse Events

https://www.fda.gov/vaccines-blood-biologics/vaccines/emergency-use-authorization-vaccines-explained
EUA for COVID-19 Vaccines

FDA (and CDC) continue to monitor for safety/ efficacy signals

- MedWatch reporting

- Vaccine Adverse Event Reporting System
  https://vaers.hhs.gov/

- FDA Adverse Event Reporting System (FAERS) public dashboard
  https://fis.fda.gov/sense/app/d10be6bb-494e-4cd2-82e4-0135608ddc13/sheet/7a47a261-d58b-4203-a8aa-6d3021737452/state/analysis
EUA Lifespan

EUAs may be revoked, terminated, or merged

EUA is not an accepted endpoint of product development

Approval will be required when the EUA declaration is terminated
Questions?

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