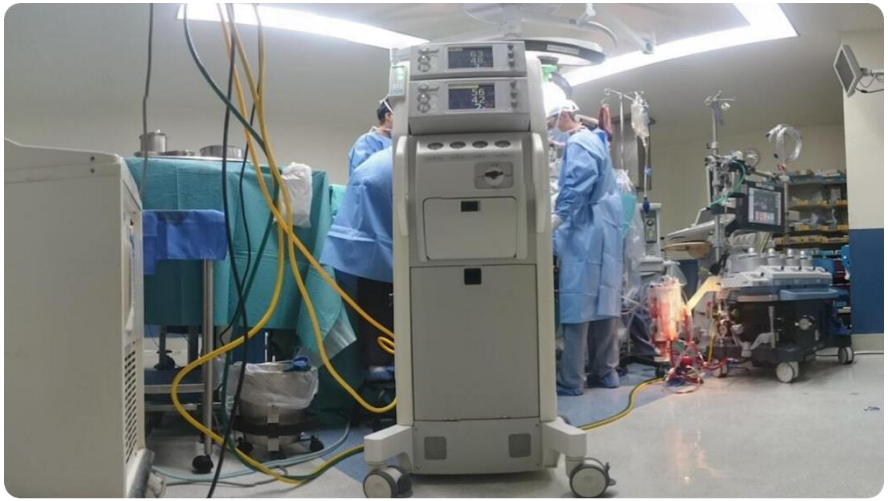
Humanitarian Device Exemption

Welcome to I3CGLOBAL

Introduction to Humanitarian Device Exemption (HDE)

Legal Framework and Strategic Significance

- **Definition & Origin:** HDE is a regulatory pathway established by the FDA under 21 CFR 814 Subpart H and Section 520(m) of the FD&C Act for devices treating ≤8,000 individuals annually.
- **Purpose:** Allows access to promising devices that address rare conditions when clinical evidence is limited, provided the probable benefit outweighs the risk.
- **Historical Background:** Rooted in the Orphan Drug Act of 1984, HDE enables innovation in underserved populations where large-scale trials are impractical.



Eligibility Criteria for Humanitarian Device Exemption

Statutory Thresholds and Justifications

Population Limit
Eligible devices must target conditions affecting ≤8,000 individuals annually in the U.S. as defined by 21 CFR 814.102(a)(5).

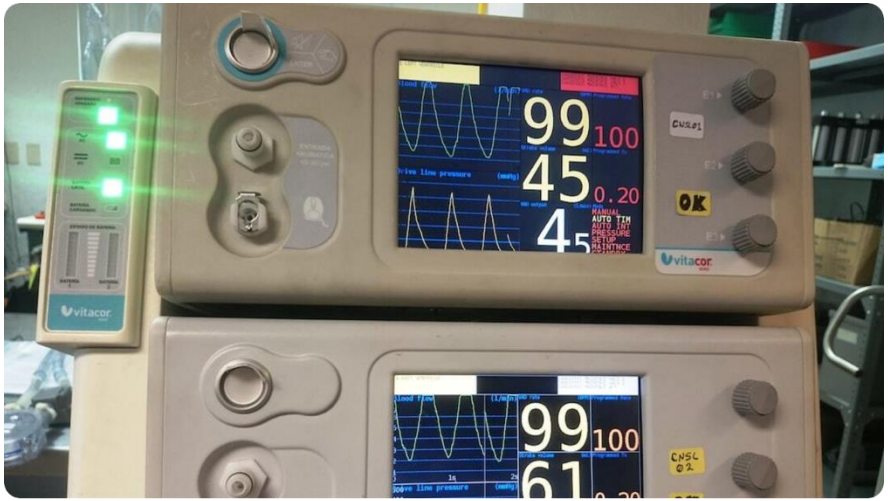
Unmet Need
No comparable device available to treat or diagnose the disease or condition at the time of submission.

Probable Benefit > Risk
Reasonable assurance that the probable benefit outweighs risk, even without traditional efficacy data.

Regulatory Panels & FDA Oversight in HDE

Roles of CDRH, OOPD, and Advisory Committees

- **CDRH Oversight:** Center for Devices and Radiological Health (CDRH) evaluates safety and probable benefit through OPEQ and OHTs.
- **Orphan Products Division:** Office of Orphan Products Development (OOPD) grants HUD designation and coordinates intercenter collaboration.
- **Specialty Advisory Panels:** Clinical panels (e.g., neurology, cardiovascular) advise FDA on complex or high-risk device submissions.

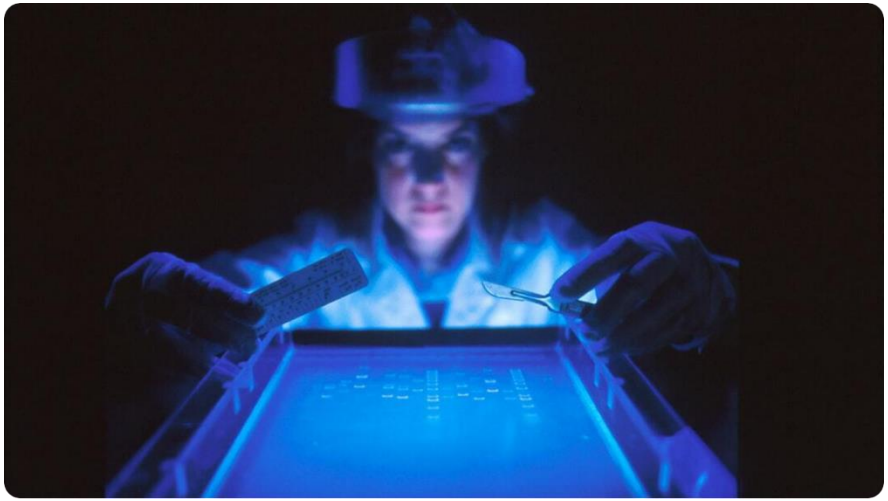


HDE Submission & Review Workflow

From HUD Designation to Final Approval

- **HUD Designation:** Sponsor submits HUD request to OOPD; review typically completed within 45 days.
- **HDE Submission:** Application reviewed by CDRH/OHTs with 75-day decision clock; includes IRB commitment and manufacturing data.
- **Panel Involvement:** FDA may convene advisory panels for complex or high-risk devices; outcomes guide HDE decisions.

https://www.ecfr.gov/current/title-21/chapter-I/subchapter-H/part-814/subpart-H?utm_source=chatgpt.com



Profit & Use Restrictions in HDE

Special Rules for Distribution and Commercialization

- **Nonprofit Basis:** HDE-approved devices cannot be sold for profit, except pediatric devices or unless granted special exemption by FDA.
- **Distribution Cap:** Annual distribution limited to the number of affected individuals (≤8,000); must report units distributed yearly.
- **IRB Oversight:** Each institution must have an IRB approve and monitor the use of the HDE device.

Navigating the FDA HDE Database

Access, Search Tools, and Data Interpretation

- **Database Access:** Accessible via the FDA's CDRH HDE approval webpage at accessdata.fda.gov; updated with device and panel details.
- **Search Filters:** Users can filter by HDE number, advisory committee, sponsor, decision date, and product code.
- **Key Output Fields:** Results show HDE ID, device name, decision date, advisory panel, and approval status.

HDE vs PMA vs 510(k): Regulatory Pathway Comparison

Key Differences in Approval Criteria and Process

- **Evidence Standard:**
  HDE: Probable benefit > risk;
  PMA: Scientific evidence of safety and effectiveness;
  510(k): Substantial equivalence to predicate.

- **Target Population:**
  HDE limited to ≤8,000/year;
  PMA & 510(k) for general population with broader indications.

- **Profitability & IRB:**
  HDE restricts profit and mandates IRB oversight;
  PMA/510(k) allow profit without IRB.

Post-Market Obligations & IRB Oversight

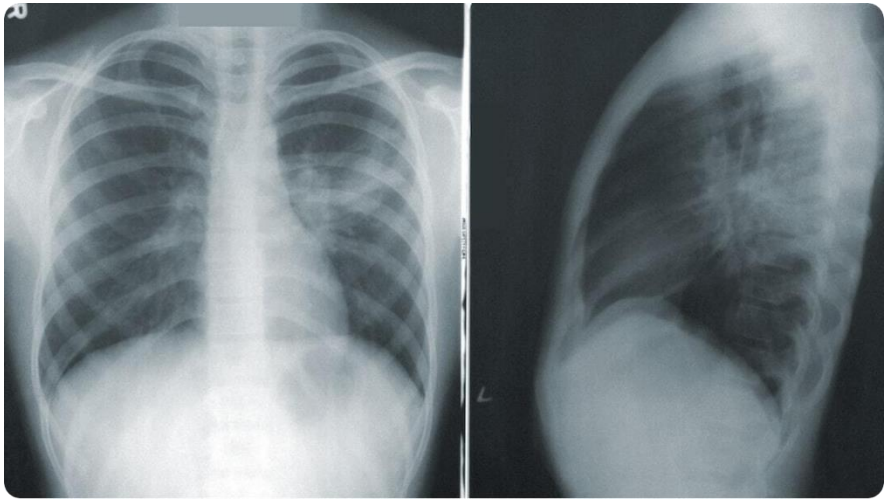
Compliance Requirements for HDE Devices

- **IRB Approval & Monitoring:** Each institution must obtain IRB approval prior to use and maintain ongoing ethical oversight.
- **Annual Reporting:** Manufacturers must submit annual reports detailing use, adverse events, and number of devices distributed.
- **Postmarket Surveillance:** FDA may mandate postmarket studies or registries to monitor safety in real-world use.

Case Study: TTFields Device (H190002)

HDE for Pleural Mesothelioma

- **Device Overview:** Tumor Treating Fields (TTFields) disrupt cancer cell mitosis using alternating electric fields; non-invasive delivery.
- **Indication & Population:** Approved for unresectable, locally advanced, or metastatic malignant pleural mesothelioma affecting ~3,000/year.
- **Regulatory Path:** Reviewed by FDA Oncology Devices Panel under HDE pathway; benefit shown in pilot clinical data.



THANK YOU

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