Humanitarian Use Devices
A brief guide for clinicians, investigators and IRB members

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Introduction

Regulations governing the use of medical devices cause a lot of confusion. In part, this is because several sets of statutes and regulations may apply — those involving patient care, those involving research with human subjects, those involving development of medical devices for marketing approval, those involving insurance billing. In part, too, it is because the grey zone is so large between activity that is unambiguously research and activity that is so small a variation on standard technique that it isn’t subject to regulation or special scrutiny.

A special class of devices (and a special set of regulatory provisions) causes particularly much confusion: Humanitarian Use Devices (HUDs). These devices (and regs) are in the Never-never Land between research and ordinary practice – they will probably never make it as commercial products under ordinary licensing rules, but they may be recognized standard or even preferred devices for certain circumstances. In some respects, they may be thought of as a parallel to “orphan” drugs.

What the regs define as a Humanitarian Use Device

A HUD is a medical device that has been granted (by the FDA) a special exemption from some of the requirements for approval before marketing, because its expected market is so small that the studies needed for licensure would simply never be able to be carried out. The general criteria are:

- Expected to benefit fewer than 4,000 people in the US per year (in some FDA information sheets, worded more narrowly as “is designed to treat or diagnose a disease or condition that affects fewer than 4,000 individuals in the United States.”)
- No comparable device already available
- No exposure to “unreasonable or significant risk of illness or injury”
- Potential benefits of the device outweigh its risks.

Obviously, these criteria are a bit subjective, but that’s not the direct worry of the local investigator or the IRB, as this determination is made by the FDA.

What’s different about an HUD?

The main difference is a direct result of the small target group of patients. An HUD is expected never to be able to get the type of efficacy data required for an ordinary Pre-Market Approval by the FDA, so it has its own special category of “approval,” called a Humanitarian Device Exemption. This “approval” retains some of the flavor of the more usual clearance for research (the “IDE” or “Investigational Device Exemption”), including IRB oversight and limitations on the ability to charge for the device. The freedom of the clinician/investigator to use the device for other than its label indications is also restricted.
What this means in practical terms

- Before the first use of an HUD in an institution, the clinician intending to use the device must obtain IRB approval (stipulated in regs at 21 CFR 814.124(a), so not much “wiggle room” available). The applicant may request approval for several patients so that it is already in place the next time; case-by-case IRB oversight is not required unless the IRB for some special reason decides it to be necessary.
- IRB review has to be by a convened quorum; it cannot be by expedited review (even though this might at first blush seem to fit expedited review criterion 1[b][i] for those devices judged to pose no more than minimal risk).
- The informed consent requirements are the ordinary clinical requirements rather than the special requirements for research; most IRBs still require documentation that the patient has been told that the device has not been licensed in the ordinary manner (and/or that it has not been proven to be safe and effective by the usual criteria).
- IRB continuing review (annual or more frequent) is required, just as for other devices under development.
- Off-label uses require IRB scrutiny and notification of the manufacturer, and may require an amendment to the HDE.
- Off-label use that is an emergency, or first use that is an emergency that cannot wait for IRB action, is handled according to basically the same rules applied to the emergency use of an investigational drug or device of any other type:
  - Life-and-limb-threatening emergency
  - No other more standard (or already IRB-approved) intervention available with reasonable chance of success
  - No preclusive regulatory barriers (i.e. within HDE provisions, or steps begun to obtain special approval) (usually handled by emergency communication with HDE sponsor)
  - Urgency of situation does not allow time for IRB review
  - (If consent must be waived) Physician uninvolved in patient’s care concurs
  - Not in the regs per se, but both FDA policy and local policy provide that an attempt be made to screen the proposed use with an IRB officer, who can walk the applicant through the criteria and begin the required administrative process
  - Formal report to IRB within 5 working days; formal application if additional patients likely.

Conclusion

The use of Humanitarian Use Devices creates confusion, because they are in some ways regarded as not being research (consent requirements and some aspects of billing) and in other ways are regarded as research (IRB review). The simplest approach is just to treat them as though they were ordinary research devices under the usual sort of IDE, but be open to a lesser requirement for documentation of consent. Most of the other special features of HUDs pertain to aspects other than the on-site regulatory and oversight requirements faced by the IRB and the clinician/investigator.

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