Electronic Signatures/Informed Consent

- Common Rule
  - First adopted in 1991
  - Addresses substantive requirements for informed consent and documentation of consent
    - Must be documented by use of a written form approved by the IRB and signed by the subject or LAR (e.g., parent/guardian)
    - Copy must be provided to the person signing the form
    - An IRB may waive consent or documentation requirements under limited circumstances
  - Silent regarding use of electronic signatures (no prohibition)
- California law (Protection of Human Subjects in Medical Experimentation Act) is also silent
Electronic Signatures (cont’d)

- OHRP has issued guidance expressly acknowledging that electronic signatures may be used if:
  - Legally valid in the jurisdiction where the research is to be conducted
  - IRB has made the necessary determinations (e.g., whether signature can be validated and consent may be produced in hard copy for a subject)

- OHRP has further opined that an electronic signature may serve as the original for recordkeeping purposes

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An IRB determination may be made with respect to any given system – or even to all electronic systems employed by the relevant research institution if the system(s) meet the relevant standards – rather than on a case-by-case basis for each individual research study.

The IRB may seek advice/expertise from regulatory/compliance/IT professionals with the necessary qualifications or may rely on documented institutional determinations made re: system specifications/functionality.

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Practice Tip

- An IRB determination may be made with respect to any given system – or even to all electronic systems employed by the relevant research institution if the system(s) meet the relevant standards – rather than on a case-by-case basis for each individual research study.

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eSignature Rules

~ Generally

- Federal and state governments have recognized the importance of adoption of electronic documentation and signature standards:
  - Federal: eSIGN (Electronic Signatures in Global and National Commerce Act)
  - State: UETA (Uniform Electronic Transactions Act)

~ Consumer Rights

- An electronic signature is valid if the subject agrees to utilize the electronic format (for example, by clicking an “I agree” icon) and a clear statement of the subject’s rights with respect to the electronic document is provided.
  - Subject rights include:
    - The right to obtain electronic records in non-electronic form;
    - The right to withdraw the subject’s agreement to have the record provided or made available in an electronic form and of any conditions, consequences or fees in the event of such withdrawal;
    - An explanation of whether the agreement applies only to the subject’s consent to participate in the study or to other categories of records that may be provided and executed electronically;
    - A description of any procedures that must be followed to withdraw the subject’s agreement to use an electronic record;
    - Information about how, after agreeing to an electronic record, a subject may, upon request, obtain a paper copy and whether any fee will be charged.

~ Additional Standards

- California has adopted additional technical standards for government entities like UC
  - These additional technical standards are “pre-empted” by eSIGN to the extent they require adoption of specific technologies
  - Any state law in this space must be technology-neutral

- HIPAA
  - Statute passed in 1996
  - Security rules are in effect and were recently updated
  - Electronic signatures rule was proposed in 1998 - no final regulation (still) but …
HIPAA “Omnibus Rule” (1/2013)

“We note that the Privacy Rule allows for electronic documents to qualify as written documents, as well as electronic signatures to satisfy any requirements for a signature, to the extent the signature is valid under applicable law.”

- 78 Fed. Reg. @ 5633

An IRB determination may be made with respect to any given system – or even to all electronic systems employed by the relevant research institution if the system(s) meet the relevant standards – rather than on a case-by-case basis for each individual research study.

The IRB may seek advice/expertise from regulatory/compliance/IT professionals with the necessary qualifications or may rely on documented institutional determinations made re: system specifications/functionality.

Practice Tip

Other Electronic Records

- Common Rule, Protection of Human Subjects in Medical Experimentation Act are silent with respect to creation, transmission, retention of research administration records (e.g., IRB minutes, source documentation, CRFs)
- eSIGN, UETA permit electronic documentation of these activities if:
  - The records “accurately reflect” what occurred; and
  - Access is assured to those who would be entitled to access paper records
- Electronic retention is permitted for records created electronically and paper records stored electronically
Note on Standards

- Compliance with FDA standards should satisfy eSIGN/UETA requirements
- Compliance with HIPAA security rules should help with Part 11 compliance
- Trick is often in proper implementation and documentation

Part 11

- Underlying FDA rules governing applications, approvals, human subjects protections, IRB operations, COI, recordkeeping, reporting – “predicate rules” – apply regardless of format (electronic or paper)
- FDA rules for electronic signatures and recordkeeping systems apply when those tools are used to support research involving drugs, biologics, devices regulated by FDA
- Purpose generally is to assure documents created, maintained, or transmitted in connection with the research – whether on paper or electronically – are Attributable, Legible, Contemporaneous, Original, and Accurate

Compliance Program Guidance Manual

- “Regardless of the type of system used by the clinical site, an important principle to understand when evaluating clinical research data is that the regulatory requirements for the clinical data do not change whether clinical data are captured on paper, electronically, or using a hybrid approach. Data must be reliable and usable for evaluating the safety and/or effectiveness of FDA-regulated products.”
Note on Use of Computers as Typewriters

- If computers are used solely to produce physical records that will be physically authenticated, or when certain legacy systems are used, FDA may exercise enforcement discretion.

FDA Inspections Approach

- Are electronic records/systems/signatures required or otherwise used?
- Are electronic data and data collection methods defined in the study protocol?
- What computerized system(s) are used to generate, collect, or analyze data (e.g., stand alone personal computer, web-based system, hand held computers)?
- Are electronic records available for inspection and have they been retained for the required period of time?
Additional Questions

- How does the firm determine which records are used for regulatory purposes (e.g., does the firm have and did it follow an SOP)?
- Does the firm have procedures and controls in place to create, modify, maintain, or transmit electronic records, e.g., operating instructions, access policies and procedures, training policies, or management controls?
- Were the individuals who develop, maintain or use the computerized systems given the education, training, and experience necessary to perform their assigned tasks?

Additional Questions (cont’d)

- Can the PI ensure accurate and complete electronic and human readable copies of electronic records, suitable for review and copying?
- Determine whether electronic records and data meet the requirements applicable to paper records (ALCOA).
- Describe how data is transmitted to the sponsor or contract research organization.
- Determine whether original data entries and changes can be made by anyone other than the PI.
- Determine how the electronic data was reviewed during sponsor monitoring visits.
- Document unauthorized changes or modifications made to original data and by whom.

Additional Questions (cont’d)

- Determine who is authorized to access the system.
- Describe how the computerized systems are accessed (e.g., password protected, access privileges, user identification).
- How is information captured related to the creation, modification, or deletion of electronic records (e.g., audit trails, date/time stamps)?
- Describe whether there is backup, disaster recovery, and/or contingency plans to protect against data loss. Were there any software upgrades, security or performance patches, or new instrumentation during the clinical trial? Could the data have been affected?
- Describe how error messages or system failures were reported to the sponsor, CRO, or study site and the corrective actions, if any, that were taken.
- How were the system and data handled during site closure?
Draft Guidance on Electronic Source Data in Clinical Investigations

Investigators should review completed portions of eCRF for each subject before data are archived and released to sponsors or FDA.

If investigator is not privy (e.g., blinded), prior FDA concurrence with plan should be secured.

Investigator should maintain control over at least one copy of any source data as reported to sponsors or FDA and retain throughout retention period - FDA’s position is that the investigator is ultimately responsible for the accuracy and integrity of reported research results.

Clinical data should be entered electronically by study site personnel at time of visit to avoid transcription errors.

Draft Guidance on Electronic Source

~ Likely Inspection Issues/Focus

Information on reliability and integrity of software or equipment used to record or transmit data elements directly from EHR or other clinical records or sources to eCRFs, including information on the ability of the software to ensure data elements are entered for correct subject.

Recommendation: algorithms for automated data extraction should be described in study protocols or other documents that include “data management details,” for example:

- How does the application address data points that change over time (weight, BP, concomitant medications)?
- Need to assure selection of correct values.
Draft Guidance on Electronic Source
~ Likely Inspection Issues/Focus

- Documents (hospital, clinic records, etc. whether electronic or written) relied on by clinical trial staff in manually transcribing clinical information to eCRFs and other research records, including original source documents and information that identifies the transcriber

  Recommendation:
  - Determine and document who may transcribe (e.g., via delegation log)
  - Determine process for documenting (e.g., via local CTMS or via eCRF furnished by sponsor/CRO) who is responsible for transcription
  - Assure availability and retention of paper/legacy source for inspection (and for electronic source, address signature/security issues consistent with regulations)

- Documentation of key “data element identifiers” for each electronically recorded data element, including:
  - Data element originators, whether human or machine
  - Date and time of entry to eCRF
  - The study subject to which the data element belongs.

  Recommendation: Assure system allows retention of modification information
  - Original (and write-protected) data element identifiers
  - Date, time, and originator of the change
  - Reason for the change

- A complete, accurate, and continuously updated list of prospectively determined originators (persons, devices, and instruments) of data elements authorized to transmit data elements to the eCRF.

- Archived copies of eCRFs and other electronic documents and records pertinent to the study, in read-only format, write-protected at the time of investigator sign-off.
Case Studies/Open Q&A

How Can We Help?
- Keep you updated on new legal/regulatory developments
- Provide advice on planned activities
- Assist in review or investigation of potential problems
- Defend UC conduct in government investigations

Questions
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