Research Repositories and Future Use: What's New? Overview, operations, and IRB submissions

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Repositories and Future Use

Learning Objectives

- Provide an overview of research involving repositories and retention of data or samples for extra use
- Learn about new changes to HRPP policies and procedures that affect research involving repositories and retention of data and samples for extra use
- Discuss IRB FAQs and examples

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What is a repository?

- The HRPP P&P has a new definition of repository:
  - **Repository** is a system or facility that collects, stores, and distributes data or biological samples obtained from living persons for research use. This research use is facilitated through the repository's established plans for sharing, either with the repository investigators who collected the data or samples, or with other investigators. Repository activities involve three components:

What is a repository?

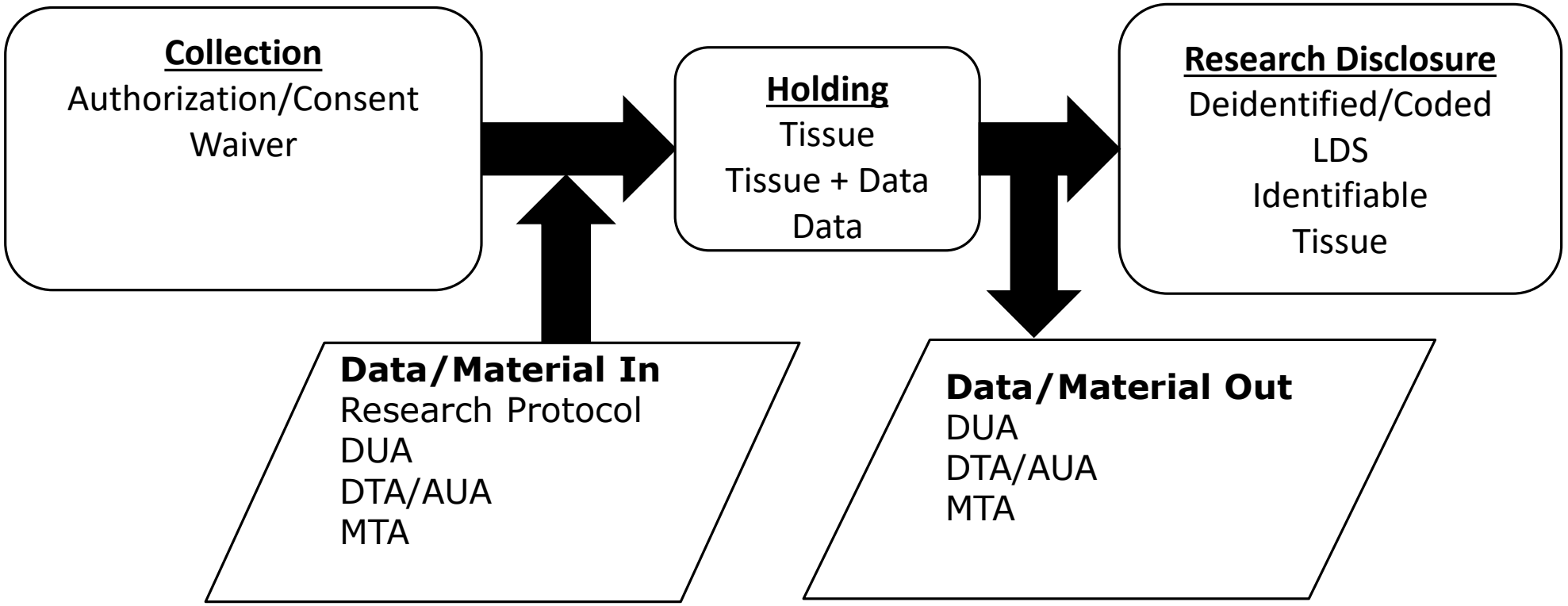
(i) the collection of the data or biological samples; and

(ii) the repository storage, maintenance, and management of the data or samples; and

(iii) the plans and activities for use or sharing for research.

A repository does not involve a study rationale, study objective(s), or the hypotheses to be tested, as the activities are limited to the collection, storage, and distribution, with no associated research analyses.

What is a repository?



Adapted from DHHS, OPRR "Issues to Consider in the Research Use of Stored Data or Tissues" (1996, 1997). From Patricia BassMay 6, 2019 MAGI Clinical Research Conference: A603

What is a repository?

- Repositories can go by other names:
  - Biobank
  - Biorepository
  - Registries
  - Tissue bank

For ease of use and understanding, we refer to them as ‘repositories’ in the P&P

What is ‘retention of data and samples for extra use?’

- The P&P have a separate definition for ‘retention of data and samples for extra use’:
  - Research involve[ing] the retention of biological samples or data for extra use by the study investigator(s) or by other investigators. Extra use means any analysis that is in addition to that required for the study endpoints.

- In simplified terms, the difference is:
  - Repositories: no study question; collection is purely for use by other studies
  - Retention for Extra Use: study has a defined question, but will keep leftovers for future use and/or sharing

What is ‘retention of data and samples for extra use?’

Studies that involve retention of samples or data include:

- Incorporating a plan for retaining samples or data in an initial submission; or
- Adding a plan for retaining samples or data to an existing approved or exempt study; or
- At the completion of a research project, changing the study to a repository so that the samples or data obtained for the research can be stored for future use; or
- Collecting samples or data as part of a new or existing study to be added to a repository elsewhere (e.g. another research site, a national database, another investigator’s repository).

What information does the IRB need?

The IRB application collects information specific to these types of research:

- The purpose of retaining the samples or data and how retained samples or data will be used; and
- For research with the sole purpose of establishing a repository, reason(s) for establishing a new repository (e.g., why material cannot be obtained from commercial supplier, clinical data warehouse or clinical biobank, or established research repository operating within the institution); and
- Whether the retained samples or data are obtained directly from subjects, obtained from other sources, or both; and

What information does the IRB need?

- Specific details about the sources of the samples or data (e.g., name of persons or institutions providing the samples or data, IRB numbers of studies where samples or data are being collected); and
- The specific data points that will be retained, and, for sample retention, the samples that will be retained and the data elements that will be attached to the samples; and
- Whether data that contain genetic information will be retained; and
- The individual or organization responsible for maintaining the retained samples or data, and, if the Principal Investigator is establishing a repository, whether the task of management of the repository is being delegated to another staff member or entity such as the BU Biostatistics and Epidemiology Data Analytics Center (BEDAC); and

What information does the IRB need?

The plans for release of samples or data, including to:

- To whom the releases will be made (other investigators, national databases for use by multiple investigators (e.g. dbGAP), commercial entities); and
- What information will be required to request a release; and
- How and by whom release requests will be reviewed to ensure that the use is consistent with the consent provided by the subjects and that confidentiality protections are adequate; and
- A description of the process for involving the appropriate parties who will execute Data Use Agreements or Material Transfer Agreements prior to release of data or samples; and

What information does the IRB need?

Confidentiality protections, as a choice of:

- De-identification of all samples and data at the time they are retained, without a master-code/key; or
- Coding of samples and data where all subject identifiers and the master-code/key will remain at Boston Medical Center or Boston University Medical Campus; only coded samples or data will be given to other investigators/entities; and the master-code/key will never be released to outsiders; or
- Releasing subject identifiers to outside entities (e.g. NCI repositories) with subjects' specific consent to do so; or
- Limiting access to subject identifiers to certain specified people; or
- Another specified method to protect confidentiality.

What information should be in consent forms?

Our BMC/BU Medical Campus templates contain instructions for what should be in consent forms:

- How samples or data will be obtained; and
- What types of research the samples or data will be used to investigate; and
- Whether genetic information is included; and
- A description of the standard operating procedures for protecting subject confidentiality, including storage and sharing of samples or data.

What information should be in consent forms?

Plans for release of samples or data, including:

- What types of researchers may request release (from Boston Medical Center or Boston University, external institutions, industry, government, etc.); and
- Who will review requests for release to ensure the research is consistent with the aims of the repository; and
- What sample or data handling procedures the recipient researchers will be required to agree to; and
- For release of samples, what information will accompany the samples (demographics, diagnosis, etc.); and

- **IMPORTANT!**
  - If the study has the potential for direct benefit to the subject, the Principal Investigator must make agreeing to sample or data retention optional; that is, the potential subject can agree to participate in the main study but not allow the retention of their data or samples.

What information should be in consent forms?

3. Repositories or other retention of samples or data
    - In **What Will Happen in This Research Study**, describe:
- How samples or data will be obtained
- What types of research will use the samples or data
- Whether genetic information will be included
- Plans for release of samples or data from the repository, including:
    - What types of researchers may request release (from BMC or BU, external universities, industry, government, etc.)
    - Who will review requests for release to ensure the research is consistent with the aims of the repository
    - What sample or data handling procedures will the researchers be required to agree to
    - For release of samples, what information will accompany the samples (demographics, diagnosis, etc.)
- If the study has the potential for direct benefit to the subject, a statement that agreeing to the retention of samples or data is optional and that the subject can agree to participate in the main study but not agree to having their samples retained
    - In **Confidentiality**:
        - Add: The repository has standard operating procedures to protect your confidentiality. A description of how specimens and/or data are stored and shared.
        - Add the following bullet to the bulleted list of people who will receive identifiable samples/data:

People who will get your data and your biological samples as we described in the section **What Will Happen in This Research Study**. These people are expected to protect your information and biological samples in the same way we protect it.

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What's New?

Recent changes (June 1, 2021) have been made to the HRPP P&P regarding repositories and retention of data and samples for extra use.

Repository VS Retention of Data and Samples for Extra Use:

- Researchers must indicate whether their study:
  - Has the sole purpose of establishing a repository, or;
  - Involves retention of data or samples for extra use

WHY?

What's New?

Recent changes (June 1, 2021) have been made to the HRPP P&P regarding repositories and retention of data and samples for extra use.

Exemption:

Research in exempt categories (9), (10), (12), and (13) may involve the retention of samples (biological specimens with associated data) or data that will be retained for extra use by the study investigator(s) or by other investigators.

WHY?

Exempt Human Subjects Research: Q- Who makes the IRB rules?

1: The federal government, **IF** it has authority:

- Money from the federal government
  - Grant
  - Payment for BMC clinical services (billed to Medicare, etc)
- Oversight by FDA (drugs and devices)
- A promise to follow the federal rules
  - To OHRP (we did until 2/14/2011)
  - To non-federal sponsor

Exempt Human Subjects Research: Q- Who makes the IRB rules?

2: We do, **IF** federal government doesn't have authority ("flexibility")

To be ethical, must provide "equivalent protections"

- Research with appreciable risks
  - – federal rules needed
- Low-risk research
  - – lesser requirements still protect subjects

What's New?

What studies qualify for equivalent protections? Easier to say what studies *don't* qualify:

- Studies that are greater than minimal risk
- Studies with federal funding (including support for any researchers under a federal training grant)
  - at the time of initial approval/exempt determination; or
  - obtained after initial approval/exempt determination – the outcome letters for studies with equivalent protections include the requirement to report obtaining external funding to the IRB within 14 days of learning of the external funding; and
- Clinical investigations involving products regulated by the FDA; and
- Studies initially approved prior to February 14, 2011; and
- Studies where the sponsor or funder of the research requires adherence to the Common Rule; and
- Studies where the Boston Medical Center and Boston University Medical Campus IRB is serving as the IRB of record for an external site, unless specifically permitted by the relying institution; and
- Studies that have utilized or will utilize any clinical services

What's New?

What exempt categories may retain data or samples for extra use?

(9) Research involving the study of materials (data, documents, records, or specimens) **that have been or will be collected solely for nonresearch purposes** (such as medical treatment or diagnosis).

(10) Research involving the study of materials (data, documents, records, or specimens) that **have been collected for research purposes** when the consent for the research does not preclude such additional research.

What's New?

What exempt categories may retain data or samples for extra use?

(12) **Research with children** involving survey procedures, interview procedures, or observation of public behavior where the investigators or research staff participate in the activities being observed.

(13) **Minimal risk research without external funding with adult subjects** able to provide abbreviated consent where the research does not qualify for categories (7) through (12).

What's New?

To ensure "equivalent protections", exempt studies that request to retain data or samples must do the following:

- Provide the same information on these activities in your protocol/application as non-exempt
- Submit an amendment prior to making any changes to retention procedures
- Include the elements of consent for retention activities

NOTE: The IRB can still require non-exempt review based on unique or sensitive issues

What's New?

Two new pieces of information will need to be provided in the application:

- For research with the sole purpose of establishing a repository, reason(s) for establishing a new repository (e.g., why material cannot be obtained from commercial supplier, clinical data warehouse or clinical biobank, or established research repository operating within the institution); and

- A description of the process for involving the appropriate parties who will execute Data Use Agreements or Material Transfer Agreements prior to release of data or samples; and
  - Information will be provided on appropriate contacts/processes

What's New?

Does the IRB need to review the recipient research study?

- NO, if the recipients never have access to identifiable information.
- YES, if the recipients receive identifiable information, OR have access to the master-code from the study that is sharing
  - The IRB has added specific language about this in the P&P

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IRB FAQs and Examples

POLLS!

Tips and Other Items to Keep in Mind

- Do not use extremely specific language about future use in your consent form; this may box you in in the future. Be broad!

- If unsure about whether you will engage in future use, err on the side of including language in your consent form, and do NOT say you will never share.

Tips and Other Items to Keep in Mind

- You cannot make future use for unspecified research mandatory if the study offers potential for benefit.
  - Check sponsor's consent templates!

- Unless there is a specific reason, do not say IRB "approval" is required for *all* recipient research
  - Many times recipient studies are not human subjects research
  - Instead, set up your own review process

Links to More information

Some Helpful Links:

- Repository: https://www.bumc.bu.edu/irb/submission-requirements/special-submission-requirements/repositories/
- HRPP Policies and Procedures:
  - Sections 7.2.2.16.4, 8.2.5, 10.2.4.2.2.2, 10.2.4.1, 10.2.5.1
- BU CR Times Feature Article: Research Repositories (Part III) - Data Use Agreements and Materials Transfer Agreements, Author: Patricia Bass, JD, MPH

Questions

Thank you!

What questions do you have?