



Know various state regulations to avoid obstacles during IRB process

It's important to ask for legal interpretations

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IRBs often are involved with studies that involve sites in other states, which raise a host of concerns and complications.

For example, these questions might be considered:

- What is the state's age of consent?
- Does the state have specific informed consent requirements?
- Are there disclosure/privacy concerns of the state that go beyond federal regulations?

"Another big question involves HIV testing because each state's laws are different," says **Terri Majors**, administrator and president of the Ethical Review Committee of Independence, MO.

"If you do HIV testing in your research study, there are some states that require a special consent," Majors adds. "And some require pre-test counseling."

Other examples of specific state laws include a state's requirement that research organizations have patients sign a specific consent form before their medical records can be accessed for research, Majors says.

"If the patient objects to the release then the records must not be released," she says. "And the release might be open-ended and not have a date of expiration, but the patients must be told they can revoke it at any time."

Also, some states have detailed hierarchies about who can act as a legally authorized representative, and some of these are applied to research while others do not specify research studies, says **John Isidor**, JD, chief executive officer of Schulman Associates IRB in Cincinnati, OH.

Some of the most complicated state regulations about research involve decisionally impaired participants and surrogate decision makers, Isidor notes.

For example, in New York there are different rule interpretations about legally authorized representatives within the state, Isidor says.

"Within different institutions in New York, they have different interpretations of what the law is," he says. "In the end, the IRB in concert

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with the investigator will decide what is appropriate.”

Generally, there are four different types of laws that impact IRBs, says **Cami Gearhart, JD**, chief executive officer of Quorum Review in Seattle, WA. Gearhart also is the 2008 chair of the Consortium of Independent Review Boards (CIRB) in Washington, DC. They are as follows:

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Editorial Questions

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1. Laws that affect the IRB's ability to function in the state: The state of Massachusetts is a good example of a state that has these types of laws, Gearhart says.

Massachusetts requires IRBs to make annual site visits and submit regular reports throughout the year, Gearhart explains.

"It's not always clear from the regulations or guidance the state provides us exactly how we're supposed to conduct those site visits," she notes. "Fortunately there are experienced site visitors in the state of Massachusetts to help us."

2. Laws that affect the criteria the IRB uses when reviewing a study: State laws regarding the age of majority are an example of this, Gearhart says.

Other examples include circumstances where minors can consent to research and limitations on research involving pregnant women and the fetus.

3. Regulations regarding the language included in informed consent forms: These types of regulations include the HIV testing and disclosure conditions, Gearhart says.

For instance, consent forms sometimes must have special language that warns participants that the results of an HIV test or a sexually transmitted disease test might be reported to public health officials, Gearhart says.

"There is one state where for HIV testing a separate consent process is required," she adds.

Another specific example can be found in California, where there is a requirement that the informed consent form contain a description of the participant's recovery time during certain clinical trials, Gearhart says.

This type of requirement is difficult to interpret, so IRBs often end up working with sponsors on a study-by-study basis to interpret it as best they can, she adds.

4. Laws that affect how a site conducts clinical research: While IRBs sometimes do not have to get as involved in ensuring that those laws are followed, there are times when the boards must pay attention to these.

For example, these types of laws include state regulations that require a separate consent process for HIV testing, and this is something an IRB would want to know about, Gearhart says.

Gearhart, Isidor, and Majors offer these suggestions for how an IRB might learn and

interpret various state laws impacting research and ethical reviews:

- **Know your own state's requirements.**

"Local IRBs need to know their own states," Majors says. "Regulations change."

Majors has come across instances where there is a discrepancy between the information that a state commonly requires from an IRB and what the regulations suggest.

So in addition to knowing what the state requires on paper, IRBs need to know how state officials have generally interpreted this knowledge.

"I've gone on the state's web site trying to verify information," Majors says.

State officials might be able to accurately answer questions about whether there is a state law on a particular subject and where to find it, but they cannot provide legal opinions, Isidor says.

- **Rely on professional legal advice when interpreting state regulations.** That's why the best and most accurate way to determine how a state interprets its own regulations is to hire an attorney for this role and make a rational decision based on this legal interpretation, Isidor says.

"To me if you obtain a law from a state where there are no legal interpretations about how that law has been applied through case law, and you act on it in a rational way and justify it, you should be fine," Isidor says.

"Interpretation of laws are left to the courts," Isidor says.

This is why it's best to ask for legal advice.

"You cannot call the state to find out how they interpret the regulation," Isidor says. "State officials would be exposing themselves to liability."

"I don't think you can be a competent IRB in the United States without having a competent lawyer as a participant on your board or as a consultant to the board if the board raises an issue that needs legal interpretation," Isidor says.

Schulman Associates IRB has four lawyers, three of whom are health care lawyers, and when they need to research state laws they have access to a variety of legal web site services, Isidor says.

- **Invest in a guide or service that provides updates.** It might save an IRB staff's time if the IRB subscribes to a service that provides updates on state laws regarding research, Majors says.

For example, Barnett Educational Services, a division of PAREXEL International Corporation,

has a guide, called the *State-by-State Clinical Trial Requirements Reference Guide*.

The guide has 50 detailed state profiles, detailing mandatory notifications, age of consent standards, informed consent and IRB standards, and other pertinent information.

CIRB has a legally vetted service that provides regular updates on state research laws, and it's available through CIRB or through subscription to the *Guide to Good Clinical Practice*," Isidor says.

"The cost to develop it was substantial," says Isidor, who was involved in its creation. "The cost to maintain it also is substantial because there are areas of laws that can change [often], and you have to keep on top of it."

CIRB was the first organization to collect state law requirements of clinical research, Gearhart says.

"CIRB built this repository and then realized it was quite a task to keep it up," Gearhart says. "So we transferred the information to a commercial undertaking, and clinlaw.com now is managed by Thomson Publishing as a subscription service that is free for CIRB members."

- **Ask for information from other IRBs, researchers, or sponsors.** "One approach we use, and a number of multi-site IRBs use it, is to ask researchers themselves to notify us of laws they're aware of," Gearhart says. "We have to take the information with a grain of salt because we've had one state where folks keep notifying us of a provision that affects recruitment materials, and as far as we can tell the provision was repealed years ago."

Likewise, IRBs should let researchers know about particular laws and requirements when the IRB learns about them.

"One multi-state, independent IRB will send information to a researcher if requested about laws of their state," Gearhart notes.

Quorum Review also will send information to researchers occasionally.

"One of the most difficult areas for researchers is knowing when it's appropriate to use a legally authorized representative to provide proxy consent on the behalf of an adult who can't provide it on their own," Gearhart says. "When we have a researcher who wants to use a legally authorized representative, we do send them a summary of state laws so they're aware of laws across the country, as well as in their own state."

Sometimes sponsors will have contacts within a state that could help with identifying and interpreting state regulations, Gearhart says.

“Sometimes they want to help address the state law issue for the sites, and other times they want to leave it to the sites to tailor their consent forms to conform to state laws,” Gearhart adds.

It’s wise to check with IRBs within a state when there’s a question about that state’s research regulations, Gearhart suggests.

“For example, some years ago we were looking into a medical records release law in Maryland that seemed more restrictive than federal law or other state regulations, so we contacted a Johns Hopkins University IRB,” Gearhart recalls. “They explained their rationale.”

Majors has contacted national organizations, such as CIRB, with questions about state regulations.

“I’ll contact other CIRB members and say, ‘Can you give me guidance on this?’ or ‘This is what I found out, what is your interpretation? What is your experience?’” she says. ■

Study analyzes impact of investigator attendance on IRB review efficiency

Findings are mixed

IRB members have different opinions and policies on whether to permit investigators to attend IRB meetings. But are these policies based on any evidence that one way works better than another?

Maryland researchers decided to examine this question with a study that evaluated the effect of investigator attendance on IRB review efficiency.¹

“Some IRBs in this country have the main researcher come and talk to the committee as they do their deliberations, and other committees do not and learn about the study through a paper trail,” says **Nancy E. Kass**, ScD, a Phoebe R. Berman professor of bioethics and public health at Johns Hopkins University’s Berman Institute of Bioethics and Bloomberg School of Public Health in Baltimore, MD.

“We were interested as authors who have sat on IRBs or staff IRBs in what kinds of differences it makes,” Kass explains.

So Kass and co-investigators conducted a retrospective review of 125 protocols submitted to four IRBs at Johns Hopkins Medical Institutions between March 12, 2002, and June 30, 2005. Two

of the IRBs invited principal investigators (PIs) to meetings, and two did not.¹

They tested hypotheses about the IRBs’ efficiency in handling the protocols, singling out the factor of principal investigator attendance at the IRB meetings.

“One hypothesis would say that bringing a principal investigator to the IRB meeting would result in a more efficient review process,” says **Holly A. Taylor**, PhD, MPH, an assistant professor in the department of health policy and management at Johns Hopkins University’s Bloomberg School of Public Health.

For example, it could be argued that having a PI at the meeting would enable IRB members to ask questions directly and obtain answers at the meeting rather than having to delay approval of a protocol until IRB staff obtain answers to those questions through phone calls, letters, or e-mails, Taylor says.

“But you could flip that around and say bringing a PI to the IRB meeting would make the process less efficient,” Taylor says. “If you had a very busy academic clinical investigator come to the IRB meeting, then this could add time at the front end of the process, and that might result in some inefficiencies.”

What investigators found was that there is no simple answer to this question. There appeared to be no difference in review efficiency between the IRBs that invited PIs to attend and those that did not. But there was a sizable increase in efficiency at one IRB when a PI was present, according to historical data.¹

A change of course—no longer inviting PIs

“It happened that our natural experiment developed even more opportunity for study because — completely unrelated to our interest — one of the committees that had always had a PI come to meetings decided to change the approach and not have PIs come,” Kass says. “So we had a comparison of two IRBs that invited PIs and two IRBs that did not, and we had one IRB that was compared to itself before and after the change.”

When efficiency factors were compared for the two versus two IRBs, there wasn’t a significant difference in how long it took for the committee to make its final decision, Kass says.

“But when we looked at the IRB that changed its approach, it was quite different,” she adds. “When they had a PI there it was quite a bit

more efficient.”

Ideally, such a study would randomize protocols sent to IRBs with half going to IRBs that have PIs present and half going to IRBs where the PI is not present, Taylor notes.

“That would help control for some factors, such as the IRB chairs’ preference for how they like to do their work,” Taylor adds.

For the retrospective review, investigators looked at these indicators of efficiency: review time to approval, number of pieces of correspondence, and number of IRB reviews before approval.¹

For all of the 125 protocols included in the study, the mean time from date of submission to date of approval was 75 days; the median was 64 days. Also, there was an average of 5.6 letters and e-mail messages between the IRB and PI, and the average protocol was reviewed at 1.8 IRB meetings before it was approved.

There were no significant differences in these averages between the two groups of IRBs.

However, for the one IRB that changed its policy from permitting PI attendance to not inviting PIs, the approval time was considerably longer when the PI did not attend. The mean number of days to approval was 70 when the PI attended and 114 days on average when the PI did not attend.

“If I was the administrator of a large academic medical center, similar to Hopkins, and I thought about whether to bring in PIs, I have no reason to think it makes the process less efficient,” Taylor says. “We know it likely does not lead to a more inefficient system, and there may be other benefits to having the PI present.”

For instance, IRBs that invite PIs to attend might make their review process more transparent to the PI, and this could improve IRB-PI communication and relations, Taylor says.

“The PI gets to see how the IRB has good intentions,” Taylor adds.

Different strokes for different folks

It’s possible that a larger study would show significant differences in efficiency, Taylor notes.

But it’s also possible that IRBs that don’t invite PIs to attend use different methods of obtaining information in an efficient manner.

Prior to IRB review meetings, IRB staff and chairs could send e-mails to investigators who have gaps in their protocol submissions. When investigators answer these questions, their

answers are included with the protocol at the IRB review, Taylor explains.

“That might be as efficient as having the PI come, and that may be one reason why we didn’t find a difference,” Taylor says.

“It turns out that in one of the IRBs [studied] where the PI was not routinely invited to attend, the IRB chair took it upon himself before each meeting to personally call many of the investigators to get a lot of questions answered,” Kass explains. “That struck him as one way to get an efficient and thorough review.”

The IRB chair believed that by getting questions answered early it might be more efficient than having a back-and-forth exchange through e-mail, and he believed that calling the PIs himself was more efficient than having them answer questions during committee time, Kass adds.

“That is not only another efficiency approach, but it might have contributed to why those committees [that didn’t invite PIs to meetings] weren’t slow,” she says.

IRB administrators who do not believe their IRBs have good communication and public relations between the board and investigators might consider inviting PIs to IRB review meetings to make the process more transparent and possibly improve their relationship, Taylor suggests.

“I’m a researcher and ethicist so I want to be careful to not overreach in terms of this very small study,” Kass says. “But it’s the kind of study that suggests it would be important to repeat this research with much larger numbers of IRBs and see if there’s a more consistent answer.”

Future research could focus on other outcomes related to having PIs attend IRB meetings, Kass suggests.

“For example, would this impact whether members of the IRB feel like they understand the protocol better and therefore feel like they are conducting an even higher quality review?” Kass asks. “And I’d love to know whether having the PI present changes the relationships and the public relations between the IRB and the researchers, because there is a human interaction.”

To test these hypotheses there would need to be a larger study that includes interviews with IRB members and PIs to assess their feelings toward each other and to test whether they understood the protocol and their sense of satisfaction, Kass says.

“Our study was intended to be a first look, a pilot study that leads me to think it’d be important to go on and do a larger study,” she adds. ■

Reference

1. Taylor HA, Currie P, Kass NE. A study to evaluate the effect of investigator attendance on the efficiency of IRB review. *IRB* 2008;30:1-5.

Research site obtains informed consent at each and every visit

Children's assent also sought continuously

When IRBs approve a clinical trial site's informed consent documents, they often have no way of knowing how the informed consent process is played out at the site.

IRB members might hope that each CR site takes time to speak with research volunteers on a continual basis and answering questions that volunteers might not even know to ask. But, realistically, how often does the care and diligence the IRB promotes end up being employed at the site level?

There is at least one clinical trial site that follows a practice and philosophy that informed consent is a continual process that must be affirmed at each site visit.

The philosophy is that this is both the right thing to do and that it is the best way to be proactive and address the sorts of problems that sometimes lead to volunteers dropping out of clinical trials, says **Brian Berendts**, BSN, RN, CCRC, senior clinical research coordinator of Bernstein Clinical Research Center in Cincinnati, OH.

Bernstein Clinical Research Center conducts pediatric asthma and allergy treatment studies that involve minimal risk, Berendts says.

"The biggest risk is their asthma may flare up or the medicine may not work," Berendts says.

Berendts provides informed consent in a way that ensures both the child and parent understand what is being proposed and have time to truly think about it.

Parents often retain very little of what health care providers tell them because of the stress of being in that situation or because of distractions, such as younger children tagging along, Berendts notes.

"So normally what we try to do with these studies is give the kids and parents a cooling-off period," he says.

"It works great with adults, but we try to

emphasize it with a pediatric study where the family comes in, or maybe the parents by themselves read through the informed consent document," Berendts explains. "They may not sign anything right away, and if they do, we try not to do any procedures on that first visit."

Here's an insider's look at how the CR site conducts informed consent in pediatric trials:

1. Assess the child's interest in the research.

"I like to meet with the parent and child together because for the child, the parent is his support system," Berendts says. "We're strangers to the child, especially if he's never done a study here before."

So parents and children sit together in a private room with the research coordinator to discuss the informed consent document.

"As a clinician, I will assess what the relationship is between the child and parent and try to pick up on any coercion regarding study participation," he says. "I want to be sure the child is here because he's interested and not because the child wants to help the family pay the electric bill."

Even children as young as age four will have a clear opinion about whether they wish to do something, Berendts notes.

"Children have the right to say, 'No,' and it has to be binding," he says.

Even children who don't say no verbally might be suggesting that with their body language.

"Silence does not equal 'Yes,'" Berendts says. "Silence to me equals 'No.'"

So if a child appears to be uncomfortable, and if Berendts asks him if he really would like to do this study and he just stares at the study coordinator or looks at his mother for the answer, then Berendts would count that as a 'No' answer.

"I really need the answers to come from them, and I document the child's verbal response to me," he says. "I want to hear children say, 'Yes, I want to be here.'"

Children who answer, "I don't know" or who are completely silent, are not assenting to a trial, Berendts adds.

2. Give the family time to read through the informed consent document.

Whenever possible, Berendts gives families time alone to discuss the study and IC document.

"I say, 'Tell me when you're done reading,' and then I leave them alone," he says. "When I

go back in, I see who has questions.”

Often, the children and parents do not have questions, so it’s helpful to give the family additional time to review the informed consent, which is why Berendts will let them take it home and think about it before signing the document.

“The cooling-off period helps because the parent may not want to ask a question about how dangerous the drug is to their child in front of their child — they’ll wait until they get home,” Berendts says. “I give everyone my cell phone number and ask them to call me and ask me any questions they have.”

3. Use conversational openers to re-consent.

When Berendts greets a family at a visit, he’ll ask how they’re doing and whether they’ve had any problems since the last time they were in.

“No matter what procedures I have to do, I’ll ask them what has changed,” he says.

Then Berendts will ask the child and family if they know what they’ll be doing that day and answer any questions they have about the procedure.

He’ll also directly ask them if they still want to be in the study.

“If I’m getting a vibe that they don’t want to be there then I’ll say, ‘Do you still want to do this, or is this something you’re having second thoughts about?’” Berendts says. “What’s going on in your head?”

This direct approach works well because people often are afraid to ask what they might think is a dumb question. Yet, if they don’t ask it, there could be negative consequences regarding their continued interest in the study, he notes.

“It’s confusing to be involved in a clinical trial, and the consent form might be 20 pages long, so we want them to ask questions,” Berendts says.

If the volunteer seems confused or uncomfortable, Berendts might show them the consent form again and discuss the various procedures listed on it.

“I encourage parents to keep that consent form with my business card attached to it and put it up with a magnet on the refrigerator,” he says. “This way they’ll always know my number and what they’ll be doing here.”

At times, the family continues to be uncomfortable, and perhaps their concerns cannot be allayed, so Berendts will make it easy for them to say they no longer wish to participate in the trial.

“If I get the sense that they’re done with the study, then I don’t push it,” he says. “If they say,

‘I’m not sure anymore’ or ‘I just don’t know if I have the time,’ and we can’t work it out, then we’ll say, ‘Studies aren’t for everyone, so it’s okay if you don’t want to participate.’”

The research staff will conduct an exit interview with the patient and family and provide any standard care they might need.

4. Provide continual informed consent assessment with all research staff.

“Right now we’re doing a study where we do X-rays of children’s wrists, and the X-ray technician might be doing her own assessment [of the child’s assent] at the same time,” Berendts says.

The X-ray procedure takes about 10 minutes, and during that time, the nurse practitioner and physician might pop into the room and ask questions about how everything is going and whether the child or parents have any questions, he adds.

“This all goes back to the research coordinator coordinating everybody’s input into what’s going on,” he says.

5. Document every consenting encounter.

Research staff should write down each time they’ve asked a volunteer questions regarding informed consent or assent.

“If you don’t write it down then you didn’t do it,” Berendts says. “I write the same sentence: ‘Patient verbalized continuing interest in study participation,’ or ‘Patient verbalized positive desire to continue participating,’ and that’s all I need to write.”

Research staff might ask 40-plus questions, but the point is to record at each visit that the volunteer still is interested in participating, he says.

“With children, ask both the child and parent, and write both answers down,” Berendts says. “Depending on the IRB’s requirements, the child will sign an assent form too.” ■

NCI provides ethical, legal guidelines for handling biospecimen resources

NCI officials explain recommendations

The National Cancer Institute (NCI) of Bethesda, MD, decided to address a deficit in quality of biospecimens collected for research purposes with the recent publication of

improved recommendations.

“The underlying need of personalized medicine is to have particularly reliable methods to detect certain biomarkers for cancer and other diseases,” says **Jim Vaught**, PhD, deputy director of the office of biorepository and biospecimen research at NCI.

“There are a number of initiatives within NCI and elsewhere that led the NCI to believe that or confirm that the quality of biospecimens collected for research purposes is not uniformly high,” Vaught says. “And we need to address them on a more consistent basis than has been done before.”

The *National Cancer Institute Best Practices for Biospecimen Resources*, published last summer, provides a blueprint for both clinical trial sites and for IRBs with regard to handling research in which biospecimens are collected and studied.¹

“The ethical and legal issues addresses five main areas,” says **Nicole Lockhart**, PhD, a biospecimen technology program specialist in the office of biorepository and biospecimen research at NCI.

These are the custodianship of biospecimens, recommendations for informed consent, privacy protection, access to biospecimens and data, and intellectual property and resource sharing, Lockhart says.

“What we try to do in this document is discuss existing federal regulations and guidance,” Lockhart explains. “We would like everyone to adhere to existing guidance and regulations.”

While NCI doesn’t mandate or recommend a specific plan, the goal is to raise awareness of the issues involved in collecting biospecimens, Lockhart says.

Here are the main areas of ethical, legal, and best policy practices that IRBs might need to keep in mind:

- **Responsible custodianship:** “Custodianship is something we are trying to investigate further,” Lockhart says. “We held workshops in 2007 dedicated to the issue of custodianship, and we’re working on some publications derived from those workshops to try to answer more specific guidance to investigators.”

NCI focuses on making any policies transparent so research volunteers know exactly what is happening with the biospecimens.

One of the aspects of custodianship that is difficult involves how the courts have addressed ownership of biospecimens, she notes.

“This gets into the issue of ownership and

how the courts have addressed this issue,” Lockhart says.

One landmark court decision was the case of *Moore v. Regents of the University of California*, Lockhart says.

The Supreme Court of California decided in 1990 that John Moore had no property rights to a cell line that was developed and commercialized from his hairy cell leukemia biospecimen.

Another case was *Catalona v. Washington University* in which a Missouri judge ruled in March, 2006, that the university, and not the researcher or patient, owned the biological samples under dispute.²

“I think what an IRB could do is maybe clarify custodianship when they’re looking at a protocol,” Lockhart suggests.

NCI uses the term ‘custodianship’ rather than ‘ownership’ because the word better describes the research institution’s role in caretaking of the specimen, she adds.

“In most cases the development of a drug involves the use of thousands of specimens, so for any one participant to derive some financial benefit is a stretch,” Lockhart says. “If you go down that road you’d never get any new treatments.”

- **Informed consent issues:** NCI recommends that the informed consent document should say something about how the research participant would not derive any financial benefits from the development of a drug or treatment that results in part from use of the biospecimen, Lockhart says.

“A lot of patients are fine with that,” she adds. “They’ve seen some of these blockbuster drugs developed for diseases like breast cancer, and they want mass treatments available to help their family and loved ones.”

Another informed consent issue is whether the volunteers will receive research results.

“We’re not advocating that research results be returned,” Lockhart says. “It’s a very complicated issue, and people are still trying to determine whether it’s appropriate.”

But IRBs should require that the informed consent tells participants whether they’ll receive study results, she adds.

“We are again advocating transparency,” Lockhart says.

“Participants should know whether their data will be shared,” Lockhart says. “Researchers need a lot of samples, and research participants need to know whether their samples are shared at their own institution or shipped across the

country and used in a collaboration.”

The key is to make certain the informed consent document is clear on this subject.

“Some informed consents are specifically for tissue banking, and they might be written in a broader way where the patient consents to donating tissue to a tissue bank,” Lockhart notes. “Sometimes the informed consent form will say something about future research use, but these vary in specificity.”

Sometimes the IC document will say the tissue may be used for future research projects, but these projects will be approved by an IRB, Lockhart says.

“I think as long as the informed consent is well designed and whatever future research is within the bounds of the informed consent, and so long as it doesn’t result in additional risk then it should be sufficient,” Lockhart adds.

- **Privacy protection:** “Part of our recommendations describes HIPAA and how it relates to biospecimen resources,” Lockhart says.

One issue of concern is whether a study can have a general authorization for use of protected health information under HIPAA, Lockhart says.

This issue is an ongoing question, so it’s something that investigators and IRBs will have to think about thoroughly.

“Investigators will need to think about what type of data they need and how it will impact how they structure their informed consent,” Lockhart says.

“Breaches in privacy and confidentiality are rare, but institutions are taking a very protectionist role and being cautious,” she adds. “I’m fairly certain that there are public health exemptions, such as a public health emergency.”

IRBs should make certain protocols are compliant with all HIPAA regulations, including data encryption and identifiable information, she says.

“HIPAA is not the end-all of privacy,” Lockhart says. “There are other means of protecting people.”

For instance, privacy and confidentiality can be protected by using intelligent bioinformatics and encrypting data, and investigators might employ these methods.

- **Access to data and biospecimens:** “We advocate having transparent policies so a researcher who would like to use biospecimens in their research can find out where they can obtain the specimens from and what access policies are in place,” Lockhart says.

“Not all resources will be in a position to share

samples, but everyone should have defined policies that are equitable and determined scientifically and clearly communicated,” Lockhart says. “Generally an access committee serves the role of reviewing these policies.”

The access part of the recommendations was put in the NCI paper because NCI felt there were uneven policies about access across biospecimen resources, Vaught says.

“We want to encourage more open policies about access,” he says.

“Not only does NCI feel like the quality of biospecimens access has been inconsistent, but that access to biospecimens has sometimes not been as open as it should be,” Vaught says.

For example, some investigators and institutions might be storing specimens and not making them readily available for research for as long as they should, he says.

“We’re encouraging access to be more open and specimens to be more available,” Vaught says. “They should be more openly available to be used by other researchers.”

In general, the NCI paper provides IRBs, research institutions, and investigators with ethical issues to consider and some guidance to best practices.

It should also help IRBs and investigators look at biospecimens in a less clinical way than their scientific backgrounds would encourage.

“Not everyone can see tissue and biospecimens in that way,” Lockhart says. “Some cultures place a very high value on any part of their bodies, and in some cases they see it as part of their soul.”

Also, there are ethical, religious, and cultural differences in philosophy about biospecimens, and IRBs need to be sensitive to these, she adds.

“People do feel sometimes an inherent attachment to what’s attached to themselves, and there might be some misunderstanding as to the importance of biospecimens,” Lockhart says.

“There is a lot of research going on, but if the general public doesn’t realize those molecules come from tissues, and if people don’t donate blood or let their remnant tissue be used for research, then research won’t continue,” Lockhart says.

“We want to raise awareness of these issues so there can be greater communication,” Lockhart adds. ■

References

1. *National Cancer Institute Best Practices for Biospecimen Resources*. National Cancer Institute, National Institutes of Health. June 2007:1-48. Available at: <http://biospecimens>.

Interactive IC might provide education in entertaining way

Program can work in doctor's office

IRBs and investigators continually look for ways to improve the informed consent (IC) process. One novel idea is to create an interactive informed consent program that serves a dual purpose of providing education to patients and trial participants.

"Medical Animatics created a 3-D, animated and interactive software program for patient education and informed consent first for Lasik surgery and then for bariatric surgery," says **Corinne C. Renguette**, MA, TCM, a graduate assistant and doctoral student at Ball State University in Muncie, IN. Renguette and co-investigator **Mary Theresa Seig**, PhD, associate professor of applied linguistics at Ball State University, studied the interactive program's impact on learning among patients considering bariatric surgery.

"Patients log into the application and can do this at the doctor's office and then at their homes," Renguette says. "They learn about their potential surgeries, seeing what surgeons are going to do and what the pre- and post-operative possibilities are."

While viewing the electronic program, potential participants are asked questions designed to assess their interest in enrolling in the study, she says.

"There are informed consent questions to let the doctors know if they agree to the procedure or not," Renguette says.

Questions also assess potential participants' knowledge about the study, and if someone answers a comprehension question incorrectly then the program provides them with education about the concept they missed, she adds.

Renguette interviewed patients before and after they used the interactive program in the doctor's office.

"We compared the language they use before

and after to see what the differences are," she explains. "We see what kind of learning is occurring."

For example, Renguette and Seig wanted answers to these questions:

- Are patients able to recall and recognize information?
- Are they able to achieve a level of critical thinking?

"We compared what the patients were saying and used linguistic analysis to determine their level of learning and understanding, Renguette says.

"We've been collecting data for quite some time, only handling one or two patients at a time," she adds. "We don't have the results yet because we're still in the analysis and data collection stage."

In writing informed consent and educational material for study participants, Renguette advocates keeping the language simple through editing.

"Many patients have an average of eighth or ninth grade education in literacy and comprehension levels," Renguette says. "We worked with staff members to edit the text and bring it to that level as much as possible."

For instance, they looked at the vocabulary and made sure that various medical terms were explained and that sentences weren't too complex, Renguette says.

The idea behind an interactive informed consent and education program is that it targets different learning styles.

"Some people prefer visual information, and some people prefer auditory information," Renguette explains. "Some want to read it, and some need to interact with the program."

That's why the software program asks participants different questions throughout, she adds.

"It doesn't personalize it to each person's specific learning style," Renguette says. "It targets all learning styles so regardless of their learning style they're able to see what they need in the program at some point."

For the visual learners, the animation and videos will engage their interest; for readers, there are captions under the pictures; for auditory learners, there is an actress who reads the material out loud, Renguette explains.

"They're watching, listening, reading, and answering," she adds. "It's really important to have alternative learning methods because not everyone can understand things written on paper."

Even if someone prefers a reading style, he

won't understand 100% of it unless he's used to studying this way, Renguette says.

"If they are all college students, then they might be fine," she adds. "But the majority of people prefer a variety of modes for learning."

And people who must consider the ramifications of surgery and a clinical trial especially need various learning styles, including pictures to convey the information more clearly, she says.

The questions are visually presented, but participants have to use the mouse to interact and answer them, and they have to watch a repeat of the program's sections where they answered questions incorrectly.

"Physicians receive a printed report showing which questions they answered correctly and which ones they answered incorrectly and how many times it took them to get the answer right," Renguette says. "So if a person answered a question incorrectly three times, then chances are that person didn't understand what was happening in that section."

In these cases, the physician investigator can go over that section again with the patient, she adds.

The interactive IC and education software was created by a collaboration with software experts and physicians. Physicians gave the software designers the original training material booklet, and the software design team created a script for an actress to read, and they created captions, Renguette says.

"Then we edited the script, using literacy level tools, making it easier to understand," Renguette says. "Then Medical Animatics sent it back to the doctors who approved the final script before the program was created."

The process took many months, she says.

The team did consider ethical issues while creating the program.

"Originally, we worried that the animation might sway patients in one direction or another," Renguette says. "If they liked the animation, it might sway them to have surgery, or if they didn't like it they might not have surgery."

But based on study results so far, that does not appear to be a problem, she says.

"People liked the application, but some may have decided not to have the surgery by the time they saw the program," Renguette says. "It just helped them better understand what would be expected of them."

One of the reasons physicians were interested in the novel educational approach is because bariatric surgery requires a great deal from patients, she notes.

"They have to do so many things to have the surgery be a success, so by learning more about their surgery, their success rates could be improved," Renguette says.

"This program provides education and informed consent," she adds. "It's based on the idea that informed consent can only be a true informed consent if the patient is actually informed about everything he or she needs to know — so the education portion is very important." ■

CNE/CME Objectives

The CNE/CME objectives for *IRB Advisor* are to help physicians and nurses be able to:

- **establish** clinical trial programs using accepted ethical principles for human subject protection;
- **apply** the mandated regulatory safeguards for patient recruitment, follow-up and reporting of findings for human subject research;
- **comply** with the necessary educational requirements regarding informed consent and human subject research.

Physicians and nurses participate in this medical education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue.

Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material.

After completing this activity at the end of each semester, you must complete the evaluation form provided and return it in the reply envelope provided to receive a letter of credit. When your evaluation is received, a letter of credit will be mailed to you.

COMING IN FUTURE MONTHS

■ Recent IRB suspension serves as warning to other IRBs

■ Ethics researcher discusses pitfalls of undue inducements

■ Adhering to regulations when presented with novel research protocols

■ Use a checklist for human subjects protection

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CNE/CME questions

21. Which of the following may be regulated differently by states than by federal research laws and regulations?
 - A. Age of consent
 - B. Specific informed consent requirements
 - C. Specific disclosure/privacy concerns
 - D. All of the above
22. Which of the following strategies is *not* helpful in ensuring a thorough and ongoing informed consent process at a clinical trial site?
 - A. Giving potential participants a "cooling-off" period to read through the informed consent document and think about what participation would mean in terms of time and risks.
 - B. Asking potential participants to sign the informed consent form after a 20-minute discussion and read-through of the document.
 - C. Assessing a participant's willingness to continue participating in a study at each visit.
 - D. Having all research staff, including physicians, X-ray technicians, and nurses ask questions and assess a participant's willingness to continue in a study.
23. The National Cancer Institute's recent guide on handling biospecimen resources emphasizes one important goal for IRBs and study sites when considering the various ethical and regulatory issues. What is this overarching goal?
 - A. Documentation
 - B. Transparency
 - C. Compliance
 - D. Reduce liability
24. What was Medical Animatics rationale for developing alternative ways of presenting informed consent and education to potential study participants?
 - A. People tend to have a short attention span in this day and age of Internet usage.
 - B. People tend to become bored when faced with long paragraphs.
 - C. People have different learning styles, including visual, reading, auditory, and interactive.
 - D. None of the above

Answers: 21. (d), 22. (b), 23. (b), 24. (c).