Stepping into the Future: The Blueprint to Creating a Fully Electronic IACUC Office

Mandy Kozlowski; Paul Mireles, LATG, CPIA; Russell Greene; Angela Brinkley
Northwestern University

Problem statement:
Within the last few years, many institutions, including Northwestern University, have spent time, money, and resources to find ways to integrate their program with technology. This includes electronic submissions of animal study protocols, semiannual inspections, and post approval monitoring (PAM). Some have had success, and others failures; Northwestern has experienced both. During the last few years, we have implemented an electronic way of tracking our PAM process, semiannual inspections and, most recently, an electronic submission process to submit animal study protocols.

Description of research:
The most recent implementation of an electronic submission process came as a result of a failed try at an online protocol submission process. From that process, we learned what we wanted from an electronic system, including the creation of a Principal Investigator (PI) library where they can store their commonly used procedures, substances, and personnel. This will allow the PI to implement items from their PI library into their protocol, or across multiple related protocols. With the creation of the PI library, we are able to eliminate inconsistent reviews from the committee members in regards to approved procedures or substances. This process also allows a PI to make an amendment to a common procedure or substance, and provides the option to implement it across just one protocol or all protocols. This saves the PI time and also improves consistency within the lab. The other issues this process has eliminated are missed questions or redundancy. With an electronic process, there is no chance that required questions are missed or that there is redundancy in multiple sections of the protocol. The use of technology was also deployed with conducting our semiannual inspections, compiling the data, tracking responses, and reporting to the committee. The in-house built software consists of three pieces of software: (1) the main coordinator software used to create the locations, schedule the teams, upload/compile the data, create the questionnaire forms used during the inspections, collect and track the results, and produce the reports for the committee; (2) a tablet based and stored locally on a Motion computing tablet and used by the inspection team that contains the scheduled teams, rooms to be inspected, the questionnaire the team will use on the inspections, and past results from previous inspections; and (3) a PI portion where the PI can log in and see when their rooms will be inspected, respond to the inspection results, and track trends related to the lab. Our PAM program also uses the Motion computing tablets to perform their PAM visits with the labs. This program was written in-house by the same person that wrote the inspection program. The program is stored locally on the tablet where the PAM coordinator can create and maintain the form questionnaire, which is used during the protocol review, open a case that contains the PI and protocols that are to be reviewed, schedule the initial protocol review and the procedure observation, and generate reports for the committee.

Conclusions:
With all the technology and programs available for IACUCs to use, it may seem overwhelming to decide whether to create an in-house platform or buy from a vendor. This poster is intended to provide a better understanding of what a program needs.