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Title: Updating the Curriculum of the AFDT Histocompatibility Specialists' Course

<u>Background</u>: Histocompatibility laboratories provide laboratory services for solid-organ and stem cell transplantation, and for clinical specialties that may involve HLA-related diseases or pharmacogenomic interactions. This ever-changing field has two courses, provided by the American Foundation for Donation and Transplantation (AFDT), which are designed for technologists and in-training laboratory directors at the beginner and experienced levels. These courses are designed to facilitate passing the voluntary credentialing examinations of the American Board of Histocompatibility and Immunogenetics (ABHI), the only certifying board specializing in the field of histocompatibility and immunogenetics. These AFDT courses have been offered for over twenty years and have never been assessed in a pedagogical manner. The AFDT Specialists' Course is a one-week intensive course in a generally didactic and interactive discussion format. The curriculum focus is on histocompatibility testing: theory and principle; procedure; application; and management.

<u>Objectives</u>: This project aims to define the educational parameters necessary for a pedagogicallyoriented revamping of the specialists' course curriculum with an eye to future revamping of the basic course curriculum.

Methods:

A first step in revamping the curriculum was to restate the course goal and define measurable learning objectives:

- Goal: The curriculum is designed for senior technologists and new laboratory directors to raise the standards of practice in clinical histocompatibility testing by promoting excellence in clinical laboratory medicine and providing a fundamental educational program to prepare for the ABHI CHS or Diplomate certification.
- Learning Objectives: By the end of the course the successful student will: recall important topics in histocompatibility science; analyze disparate sets of data to arrive at a decision about a clinical test result; and, relate covered topics to clinical histocompatibility testing

Future work will revolve around:

- Current course feedback has consistently stated that too many lecturers have repeated topics covered by another faculty member, necessitating the de-cluttering of the curriculum. A comprehensive review of the topics covered by each faculty member to ensure that topics are not duplicated and that sufficient breadth of the field is covered adequately.
- Identify which topics would lend themselves to more active learning than basic didactic lectures. To ensure that students are more engaged, tools for such active learning could be: real-time surveys/questions utilizing Poll Anywhere or similar apps; small sessions of classroom flipping wherein students can give a small case presentation about real problems they may have encountered in the laboratory; or faculty giving topics for small group discussions.

Evaluation Plan:

1. Provide all students an opportunity to assess the course on a longer timeframe, such as 9 months to a year, in addition to the current method of having students fill out an assessment on a daily basis. This will also allow us to determine if the student was able to pass the credentialing exam and better assess the course's effectiveness in helping them do so.

2. Assessing the differences between the course exam (given approximately 30 days post-course and written by the course faculty) and the actual credentialing examinations. This would require the cooperation of the actual credentialing body, the ABHI.

<u>Conclusions</u>: A revamped AFDT Specialists' Course will assist in raising the standards of practice in clinical histocompatibility testing by ensuring that the practitioners of such testing are able to have the fundamental knowledge necessary for excellence in the practice of clinical histocompatibility testing.