

Abstract of proposed student project (1 page limit. This should mirror the aims page of a grant and CLEARLY indicate the student's role.)

INTRODUCTION: Strict adherence to proper aseptic technique is important for mitigating surgical site infection, particularly with major surgical procedures. While breaks in sterile technique can occur at any moment during surgery, contamination events may be especially prevalent when donning sterile attire, i.e. gowning and gloving. This is because it is the moment at which the non-sterile surfaces of the body (including scrubbed skin) are being covered, and the process typically occurs away from broadly sterile areas such as the surgical field. Anecdotally, we have frequently observed errors in aseptic technique during the process of gowning and gloving amongst veterinary students in our teaching hospital. Quantifying and characterizing these errors would potentially highlight suboptimal practices in the operating theater, identify the most common reasons for contamination, and promote the development of improved aseptic technique protocols or teaching methods.

METHODS: This observational study will be fully approved by the University of Florida Institutional Review Board. Students on clinical rotations involving small animal surgery (orthopedics, soft tissue surgery, surgical oncology, neurology) will be recruited and informed of the study objectives and methods, including the use of video recording. Only students that fully consent to participation will be included. Digital video cameras will be used to record students from the moment they enter the operating theater after scrubbing, until the donning of surgical attire is completed (n=200 students).

Video recordings will be reviewed by an observer (FVSP student), and contamination and near-contamination events will be recorded. These events include: dripping of water onto sterile components, touching of sterile objects other than the inside of the surgical gown with bare hands, pushing fingers and hands completely through the cuffs, improper use of the towel (including contact of the towel with scrub tops), contact between the sterile surfaces of the gown to non-sterile surfaces, such as tables and the margins of open gown drapes.

Descriptive statistics will be performed. Associations between contamination frequency and factors such as service type (orthopedics vs soft tissue vs oncology) and stage of rotation (early vs late) will be ascertained.

ANTICIPATED RESULTS: We anticipate finding most veterinary students will not maintain proper sterility during gowning and gloving. In addition, we suspect there will be no effect of service or stage of rotation on contamination frequency.

FVSP Student involvement: Assisting with IRB application, recruitment of fellow students, data collection (recording and analyzing video), manuscript preparation with targeting publication as first author in peer-reviewed veterinary journal.