Evaluation of telepharmacy and the use of gravimetric technology-assisted workflow software for remote sterile product pharmacist verification

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Purpose: Telepharmacy has recently become an area of interest for many health systems across the nation seeking to expand medication access to patients in rural communities. Many states have not identified a role for telepharmacy in hospital pharmacies, specifically regarding compounded sterile products (CSPs), and current regulation at the state level is inconsistent. For states that have not established rules and regulations to allow for telepharmacy, the exploration of several opportunities, including workload sharing and optimization of technology as well as the expansion of medication access to patients, is hindered. The objective of this study is to evaluate if sterile product pharmacist checks when used with gravimetric technology-assisted workflow (TAWF) software are as accurate when verified remotely as when verified in the same location as the physical product.

Participants: The study process will be launched at four University of North Carolina (UNC) Health Care pharmacy sites. Pharmacists employed at each of the sites will be recruited to participate in a survey.

Procedures (methods): A multi-site, double-arm, prospective, quasi-experimental study design will be utilized. Four UNC Health Care pharmacy sites will be included. The study will be divided into two separate arms and will extend for three months. The primary endpoint is accuracy and will be assessed by comparing the number of errors detected through the remote verification process by the first pharmacist to the accuracy data of the verification by the second pharmacist also checking the physical product. Secondary endpoints include verification time, workload sharing, cost savings, and pharmacist staff perception. Pharmacist staff perception will be assessed at baseline and at the end of the data collection period. Data analyses will be performed through collaboration with a biostatistician. Accuracy and time data will be obtained from the gravimetric-based TAWF system. Descriptive statistics will be utilized to analyze accuracy data and survey data, and quantitative statistics will be utilized to analyze time data.