CuO aerosols, cytotoxicity and mRNA expression (i.e., HMOX1 & IL-8) will be assessed via LDH and RT-qPCR to determine the effect of regional (mass deposited/area of the pattern) and global (mass deposited/area of the cell culture insert) doses in cells. RESULTS/ANTICIPATED RESULTS: The deposition areas covered by rectangular, spot, annular ring, and circular patterns are estimated to be 6, 17, 27 and 85% of the insert's surface area, onto which cells are cultured. Results for the patterns tested (spots and annular ring) show that both the regional and global doses were greater for spots than annular ring. Also, the regional doses were higher than global doses. Irrespective of the patterns, the global doses were the same for nebulizer suspensions of 0.1-1 mg/mL. Statistical analysis by ANOVA revealed there was no significant difference in doses between replicate inserts used in the same trial. We anticipate that regional doses with aerosol deposition to a larger surface area of the cell culture insert will correspond with higher cytotoxicity and mRNA expression of HMOX1 and IL-8 in cells. DISCUSSION/SIGNIFICANCE: There are limited in vitro exposure systems that can efficiently deliver aerosols to lung cells, while also mimicking inhalation by humans. In addition to addressing this knowledge gap, we will show the role of regional & global doses in studying cellular response & the ability of DAVID to deliver aerosols in different deposition patterns.

127

A formative usability evaluation of a community pharmacist-facing health information exchange (HIE) interface

Katelyn N. Hettinger[1]
Margie E. Snyder[1], Omolola A. Adeoye-Olatunde[1,2], Alissa L. Russ-Jara[1,3] [1]Purdue University College of Pharmacy [2]Center of Health Equity and Innovation [3]Regenstrief Center for Healthcare Engineering

OBJECTIVES/GOALS: To evaluate the usability of a HIE interface design among community pharmacists and technicians to identify opportunities for design improvements METHODS/STUDY POPULATION: Pharmacists and pharmacy technicians employed at Indiana community pharmacies participated in formative usability testing, via a Rapid Usability Evaluation (RUE), with an interactive, PDF prototype of the HIE interface. Participants were video-recorded to capture first impressions on the usability of the HIE prototype via the think aloud technique. Each participant had up to 1 hour to complete 4 clinical scenarios. Afterwards, participants completed the System Usability Scale (SUS; scale 0–100, with 100 being the best) to rate their satisfaction with the HIE prototype. RESULTS/ANTICIPATED RESULTS: Across 3 community pharmacies, 16 individuals participated in usability testing: 8 pharmacists and 8 technicians. The average SUS score for the HIE interface across participants from all sites was 70. Pharmacists on average scored the interface higher than technicians, 74 vs. 65, respectively. Initial findings from one pharmacy revealed that both pharmacists and technicians expressed a desire for improved efficiency (i.e. fewer clicks) to access HIE data, alternative placement of HIE links within existing systems, and improved navigation to exit HIE links. DISCUSSION/SIGNIFICANCE: Initial results reveal opportunities to improve the HIE interface usability. Findings will inform design improvements to the interface and the creation of a toolkit to support the sustainable and scalable participation in HIE by community pharmacies.

128

A single-arm pilot study of an adapted Serious Illness Care Program for older patients with acute myeloid leukemia and myelodysplastic syndromes*

Marissa LoCastro[1], Jason Mendler[2], Sally Norton[3], Rachelle Bernacki[4], Thomas Carroll[5], Heidi Klepin[6], Soroush Mortaz-Hedjri[5], Marielle Jensen-Battaglia[5], Jane Liesveld[2], Eric Huselton[2], Kristen O'Dwyer[2], Andrea Baran[5], Marie Flannery[3], Benzi Kluger[5], Kah Poh Loh[2]
[1]University of Rochester School of Medicine and Dentistry [2]Wilmot Cancer Institute [3]University of Rochester School of Nursing [4]Harvard Medical School [5]University of Rochester Medical Center [6]Wake Forest School of Medicine

OBJECTIVES/GOALS: We adapted the Serious Illness Care Program (SICP), an evidence-based intervention designed to promote early serious illness conversation, to be delivered via telehealth for older patients with acute myeloid leukemia and myelodysplastic syndromes. The purpose of this study is to assess the feasibility and usability of the adapted intervention. METHODS/STUDY POPULATION: We are conducting a single-arm pilot study of an adapted SICP that is delivered via telehealth for older patients with AML or MDS (>=60 years) and their caregivers (if available). The adapted SICP includes: 1) Patient preparation pamphlet: sent to patient prior the visit with their clinician, 2) Geriatric assessment: completed by study team and provided to clinician prior to their visit with the patient, 3) A 30-60 minute telehealth visit with their primary oncologist or oncology advance practitioner, 4) Serious Illness Conversation Guide (SICG): used by the clinician during the visit to elicit patient values, 5) Family guide: provided to patient following their visit to help patient's share their values with their family, 6) Electronic medical record note template for clinicians to document their visit the patient. RESULTS/ANTICIPATED RESULTS: We hypothesize that the adapted SICP intervention will be feasible and usable. We will assess feasibility based on retention rate (percent of patients who consent and complete the visit); >80% is considered feasible. Usability will be assessed using the telehealth usability questionnaire; an average score of >5 is considered usable. Other measures include psychological health, advance care planning engagement, quality of life, and disease understanding. We plan to enroll 20 patients in this study. To date, 11 patients have consented to participate, 10 patients have scheduled SICP visits, 9 patients have completed their visits, 7 patients have completed post-intervention qualitative interviews, and 4 patients have completed post-intervention surveys. DISCUSSION/SIGNIFICANCE: The adapted telehealth-based SICP may promote early serious illness conversation, patient-reported outcomes, and end-of-life experience for older patients with AML and MDS. Results from this study will be used to inform development of clinical trials testing the impact of the adapted SICP on patient- and caregiver-reported outcomes.

https://doi.org/10.1017/cts.2023.210