1319. Examining PrEP Knowledge and Prescribing Likelihood Among Medical Residents Before and After PrEP Education

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Background. Since approval in 2012, the uptake of PrEP in high-risk patients remains low, especially among primary care providers (PCPs) who lack knowledge and confidence regarding its use. Continuing education (CE) has been extensively used to address such knowledge and practice gaps, yet little evidence exists supporting the impact of these initiatives on direct patient care and cost.

Methods. This was a prospective study using a convenience sample of Internal Medicine and Internal Medicine-Pediatrics residents at a tertiary care center in Portland, Maine. Participants attended a resident-led teaching session on PrEP and completed pre- and post-session surveys. PrEP knowledge was measured with five questions (definition, evidence, patient selection criteria, medication choice, and guidance with regard to likelihood) on a Likert scale. Participants identified motivating factors and barriers to prescribing. Survey data were analyzed with McNemar’s test or a paired Student’s t-test as appropriate.

Results. Thirty residents completed the study; of these, 24 (83%) had at least 1 patient that they considered at high risk for HIV, and 14 (46%) reported having >5 such patients. None had ever prescribed PrEP. Average PrEP knowledge score increased after the intervention (pre = 2.33 vs. post = 4.1, P < 0.001). After the intervention, more participants reported that they would be likely to prescribe PrEP (pre = 76% vs. post = 90%, P = 0.014), fewer identified unfamiliarity with PrEP guidelines as a barrier (pre = 73% vs. post = 27%, P < 0.001), and other residents are prescribing PrEP became a significant motivating factor (pre = 47% vs. post = 90%, P = 0.04). Preceptor comfort with prescribing PrEP was a consistently important influence on prescribing likelihood (90% vs. 82%, P = 0.02).

Conclusion. Familiarity with PrEP is relevant to resident practice, and an educational intervention is effective in the short term for addressing inadequate knowledge as a barrier to offering PrEP. Resident practice is influenced by preceptors and peers, suggesting that it may be helpful to include attending physicians in future PrEP education efforts as well.

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1320. Continuing Education Improves HIV Screening and Use of PrEP in High-Risk Patients

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Background. Since approval in 2012, the uptake of PrEP in high-risk patients remains low, especially among primary care providers (PCPs) who lack knowledge and confidence regarding its use. Continuing education (CE) has been extensively used to address such knowledge and practice gaps, yet little evidence exists supporting the impact of these initiatives on direct patient care and cost.

Methods. Vindico Medical Education partnered with Improve CME to assess the impact of seven CE programs targeted to PCPs from 2015 to 2017 regarding the use of PrEP in high-risk patients. An outcomes analysis model was used and designed to estimate (1) patients newly identified as HIV+, (2) patients newly on PrEP or HIV treatment, and (3) associated costs of care due to the CE.

Results. Prescribing providers (n = 4,550) who each see an average of 16.8 patients at high-risk for HIV infection per month, participated. Prior to learning only 44% of participants reported that they frequently offer HIV testing to high-risk patients; and 28% frequently use PrEP clinical guidelines. Six-month post education, however, 83% and 68% of providers reported using HIV testing and PrEP guidelines, respectively. We then used evidence-based parameters to project the number of high-risk patients who, based on our pool of patients directly impacted by the education, would be willing to accept an HIV test, those who would be HIV+ vs. HIV−, and those who would be willing to accept and adhere to either HIV treatment or PrEP. The model estimated that over the course of 1 year, 135,941 high-risk patients would be newly offered an HIV test. Of those accepting the test (n = 54,376), 163 would be newly identified as HIV+. Of the 54,213 newly identified as HIV+, at least 3,914 would be placed on PrEP. Using accepted values for direct cost of care, this translates to $1.26 million per year for patients newly treated for HIV and $92.4 million per year for those patients newly on PrEP.

Conclusion. Targeted CE to PCPs increased screening rates for HIV infection in high-risk patients, increased awareness and use of PrEP, and linked patients with appropriate care. These findings validate the need for ongoing CE programs to address persisting unmet needs and show that modeling can be used to estimate patient outcomes from CE programs.

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1321. The UNZA/UMB MMed ID Collaboration: Training and Retaining HIV Specialist Physicians in Zambia

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Disclosures. All authors: No reported disclosures.

1322. Are We PrePared? Awareness and Prescribing Patterns of HIV Pre-Exposure Prophylaxis (PrEP) by Internal Medicine Resident Physicians at an Academic Medical Center

J. Patrik Hornak, MD; Internal Medicine, University of Texas Medical Branch, Galveston, Texas

Session: 143. Medical Education

Background. PrEP uptake remains low by primary care physicians, amongst whom increased awareness has been positively associated with its adoption. Prior studies have also revealed deficits in knowledge and comfort providing PrEP amongst internal medicine (IM) trainees. This is among the first reports of assessing PrEP uptake by IM residents; this appears to be the first examining pre- and post-instruction assessment of prescribing attitudes following a single lecture on the topic.

Methods. An anonymous, online survey was distributed to all IM residents at our institution to measure baseline PrEP awareness and prescribing patterns. A comprehensive PrEP lecture was formulated with assistance from infectious diseases (ID) faculty; focus was placed to addressing concerns about cost, safety, risk behavior compensation, and drug resistance. The lecture was made available electronically to those unable to attend the live session. PrEP knowledge and prescribing attitudes were measured and compared pre- and post-lecture. Fisher’s exact test was used for descriptive statistics.

Results. Of 97 initial surveys distributed, 41 were completed. A majority of respondents were aware of PrEP (68%). A modest number had either prescribed PrEP or referred a prospective patient to an ID specialist in the prior year (15%). The majority preferred to learn about PrEP with a dedicated didactic session (76%). Compared with baseline data, following the lecture, residents were better able to identify both the number of daily pills required (100% vs. 49%, P = 0.007) and the proper medication regimen (100% vs. 49%, P = 0.007); there was no significant difference in self-reported comfort with providing PrEP (89 vs. 65%, P = 0.25). In the post-lecture survey, nearly half reported a preference to refer a PrEP candidate to an ID specialist or PrEP clinic (43%).

Conclusion. These findings suggest value in providing PrEP education to IM trainees, but indicate that a single lecture may not be effective for ultimately improving its adoption by this important group of physicians. Determining the optimal method for integrating PrEP into residency curricula deserves further study. Despite efforts to expand PrEP into the realm of primary care, many of these physicians may continue to defer management of these patients to ID/HIV clinicians.

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Disclosures. All authors: No reported disclosures.
Background. To mitigate the HIV pandemic and increasing outbreaks of infectious diseases, sub-Saharan African countries need increased healthcare worker capacity. The need for subspecialty fellowship training to meet the needs of the current workforce has resulted in retaining health leadership and clinical care expertise in Zambia, UNZA, UTH and UMB partnered in 2008 to create a 1-year Postgraduate Diploma in HIV Medicine. The consortium extended this to an 18-month Master of Science in HIV Medicine to better align with existing professional advancement schema.

Methods. UNZA, UTH and UMB started a 4-year Master of Medicine in infectious diseases (MMEDID), which was then expanded to a 5-year training program combining internal medicine and infectious disease (MMED IM/ID) in order to produce a cadre with wider expertise in internal medicine and infectious diseases. Instruction consists of bedside teaching, didactic lectures, case conferences, and journal clubs.

Results. The number of matched applicants increased significantly over the last 10 years, and was highly correlated with the increase in matched applicants over time except ID and nephrology, which both saw initial decreases in matched applicants in the last 10 years. A comparison of matched applicants in ID have now reversed after conversion to the "all-in" match, and the number of matched applicants in ID and nephrology has actually increased over the last 10 years, and has doubled in nephrology. The number of matched applicants in IM/ID has increased over the last 10 years.

Conclusion. Educational collaborations embedded within local institutions and structures can provide advanced healthcare expertise within resource-limited settings. The UNZA/UMB MMED ID collaboration is a model example of a successful university partnership that has resulted in retaining health leadership and clinical care expertise in Zambia. 1 physician emigrated to another African country, another one died and the third is in clinical nonleadership position in Zambia. The MMED ID program has enrolled 14 physicians. The first two graduates of the program completed the program in 2017 and have been hired as health cadre within the MOH as well as teaching positions at UNZA.

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1322. Implementation and Effectiveness of the Asia Pacific HIV Practice Course: Building Capacity of Healthcare Workers in the Region

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Background. Building the capacity of healthcare workers (HCW) can positively influence service quality and patient care. Given the limited HIV training opportunities in the Asia Pacific Region, the Asia Pacific HIV Practice Course (APHPC) aims to improve knowledge and skills and encourage patient-centered practice.

Methods. The APHPC is organized by an interprofessional organizing committee. The course was developed based on a needs assessment of HCW in the region and is run over 4 days. Using didactic and interactive learning approaches, the course covers resource management, care delivery to large numbers of people, and building of treatment programs for ARV, prevention, and PrEP services.

Results. There was significant improvement in mean confidence scores pre- and post-course (M = 3.40, SD 0.27) and post-course (M = 4.09, SD = 0.13); t(11) = 13.1958, P < 0.0001. This was seen across all topics (figure) with the most marked improvement found in models of care and barriers to care, topics that are not routinely or explicitly covered in the same detail as other topics. Converting HIV basics, testing, treatment and prevention to an "all-in" match, and the next few years will be critical to determine whether this trend continues.

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1323. Development of HIV-ASSIST, an Online, Educational, Clinical Decision Support Tool to Guide Patient-Centered ARV Regimen Selection

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Background. Multiple antiretroviral (ARV) regimens are effective at achieving HIV viral suppression but differ in pill burden, resistance profile, side effects, and impact on comorbidities. Current guidelines advocate for an individualized, patient-centric approach to ARV regimen selection, including simplification of ARV regimens in patients with stable viral suppression. Synthesizing these modifying factors is necessary for effective care but is a complex and time-consuming process. Building the capacity of healthcare workers (HCW) can positively influence service quality and patient care. Given the limited HIV training opportunities in the Asia Pacific Region, the Asia Pacific HIV Practice Course (APHPC) aims to improve knowledge and skills and encourage patient-centered practice.

Methods. The APHPC is organized by an interprofessional organizing committee. The course was developed based on a needs assessment of HCW in the region and is run over 4 days. Using didactic and interactive learning approaches, the course covers resource management, care delivery to large numbers of people, and building of treatment programs for ARV, prevention, and PrEP services.

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Conclusion. The APHPC has proven to be an impactful and highly evaluated course. To ensure the course continues to influence and improve practice, the content of the course can be expanded to cover nonstandard topics, and further interactive learning experiences can be incorporated.

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