

Gaps in patient-facing information on artificial intelligence in cancer care: A cross-sectional analysis.

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Background: Artificial intelligence (AI) is increasingly integrated into cancer care and is also widely accessed by patients seeking information about their diagnoses and treatments. While AI has the potential to improve care delivery and patient engagement, inadequate or misleading patient education may introduce safety risks. We assessed the availability, readability, and quality of publicly available online patient-facing information about AI in cancer care. **Methods:** We conducted a cross-sectional analysis of online patient-facing information related to AI in cancer care. Using common cancer- and AI-related keywords identified using Google Trends, we searched Google and YouTube on August 6, 2025. The first 170 webpages and 150 videos were screened for relevance and patient-facing intent; scientific or industry-facing content was excluded. Eligible webpages and videos were independently evaluated by two reviewers with discrepancies resolved by a third. Webpage readability was assessed using validated indices (Flesch-Kincaid [FK], Gunning Fog [GF], and SMOG). Content was evaluated for discussion of key AI safety concepts including clinician oversight, transparency, bias, and hallucination or misinformation risk. Quality of consumer health information was assessed for both webpages and videos using the DISCERN instrument, with scores ≥ 4 (of 5) indicating high quality. Descriptive statistics were used to summarize findings. **Results:** Of the 170 webpages screened, 52 (31%) met inclusion criteria. Most content focused on breast cancer (n=30, 58%) or was pan-tumor (n=22, 42%). Median readability corresponded to a college-level reading standard, with median grade levels of 12.8 (IQR: 11.6-14.1), 14.8 (IQR: 13.5-16.5), and 14.2 (IQR: 13.6-15.6) based on FK, GF, and SMOG indices, respectively. Most webpages discussed clinician oversight (n=41, 79%) and/or transparency (n=41, 79%), and over half addressed bias (n=29, 56%); however, few discussed hallucination or misinformation risk (n=8, 15%). Only 33% (n=17) of webpages met criteria for high-quality information. Of the 150 videos, 29 (19%) met inclusion criteria. Median view count was 127 (IQR: 23-1000). Few (n=11, 38%) were classified as high quality based on DISCERN scores. **Conclusions:** Publicly available, patient-facing information about AI in cancer care is limited, difficult to read, and often of low quality. Inadequate discussion of AI-related risks, particularly hallucinations or misinformation, may leave patients poorly informed as they encounter or independently use AI-based tools. These findings highlight the need for accessible, high-quality educational resources that clearly explain the clinical role of AI in oncology and provide guidance for safe patient engagement. Research Sponsor: None.

Artificial intelligence (AI) in hematology and oncology fellowship (HOF) training: A multicenter survey of education, attitudes, and clinical use.

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Background: A prior national survey of U.S. HOF curricula demonstrated substantial heterogeneity and limited protected time for didactics beyond traditional lecture-based education¹. More recently, artificial intelligence (AI), including large language models and ambient listening tools, has become increasingly integrated into trainee education and clinical practice²⁻⁵. We conducted a multi-center survey to assess the use of AI among HOFs. **Methods:** Hematology/oncology (H/O) fellows were recruited via email by program leadership to complete an anonymous survey adapted from our prior study, with added questions on AI education, attitudes, and clinical use. Responses were collected via REDCap and summarized using descriptive statistics. **Results:** A total of 118 H/O fellows responded from 18 of 30 invited U.S. HOF programs (60%), primarily from academic centers (94%), with a near-uniform distribution across fellowship training years. Most fellows (74%) reported using AI tools such as ChatGPT or OpenEvidence. Commonly used resources included NCCN guidelines (92%), UpToDate (86%), faculty lecture slides (70%), primary journals (65%), podcasts (58%), textbooks (29%), and social media (20%). Only 8% reported receiving AI education during HOF training. Most fellows felt AI was useful for medical education (93%) and were confident using AI tools for learning (74%). The majority anticipated increasing AI use over the next 5 years (92%) and expressed interest in AI training during fellowship (82%). Fellows most commonly used large language model-based AI tools to clarify difficult concepts (86%), summarize journal articles (83%), and learn about emerging research (75%), whereas fewer reported use for question generation (31%) or patient case simulations (29%). AI-assisted documentation was the most commonly used clinical AI application (51%). Reported barriers to AI use included (in order of highest concern): uncertainty regarding accuracy, lack of formal training, data privacy concerns, and unclear ethical or institutional guidelines. **Conclusions:** AI tools are widely used and perceived as useful for clinical and educational purposes by current H/O fellows, yet formal training during fellowship remains limited. These findings highlight an unmet need for structured education on effective, safe, and ethical AI use, with opportunities for multi-institutional collaboration to achieve scalable impact aligned with contemporary oncology practice. Research Sponsor: None.

Patterns of artificial intelligence use among physicians in Mexico: Implications for oncology practice.

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Background: Artificial intelligence (AI) is increasingly incorporated into medical practice; however, physician-level factors associated with AI adoption and usage patterns, particularly among oncologists practicing in low- and middle-income countries, remain insufficiently characterized. This study aimed to describe patterns of AI use among physicians in Mexico and to explore physician-level factors associated with adoption. **Methods:** We conducted a cross-sectional, anonymous survey among physicians from multiple specialties in a tertiary care center in Mexico to assess AI use, professional activities (clinical care, research, and teaching), training interests, and perceptions regarding AI. The primary outcome was self-reported AI use. Associations between physician characteristics and AI use were evaluated using nonparametric statistics. Among oncologists, AI use patterns, training interests, and perceptions were summarized descriptively. **Results:** Between August and September 2025, 170 physicians completed the survey. Overall, 77.1% were < 40 years old, 50% were women, and 91.7% had ≤ 10 years of professional experience. Clinical specialties predominated (78.8%) over surgical specialties (21.2%). Most respondents were involved in clinical care (94.1%), followed by research (48.4%), and teaching (27.1%). AI use was highly prevalent (88.2%), with generative models being the most commonly used tools (80.0%). Physicians younger than 40 years reported significantly higher AI use than those aged ≥ 40 years (93.1% vs 71.8%, $p < 0.001$) and were more likely to use AI in clinical practice (77.9% vs 43.6%, $p < 0.001$). No significant age-related differences were observed for research or teaching activities. Use of AI-based data analysis tools varied by specialty and was more frequent among surgical compared with clinical specialties (63.9% vs 37.3%, $p = 0.004$). Among oncologists ($n = 32$), 87.5% reported AI use, primarily in clinical practice (75.0%) and research (50.0%), while use in teaching was less frequent (21.9%). Most oncologists expressed strong interest in formal AI training (84.4%) and ethical considerations (87.5%). The majority agreed that AI could improve quality of care and support clinical decision-making (95.2%), while emphasizing the need for continued physician oversight. Concerns regarding data security were common (84.7%), whereas concerns about loss of medical autonomy were generally moderate (36.4%). **Conclusions:** AI adoption among physicians in Mexico is strongly associated with age and professional activity. Oncologists demonstrate widespread AI use in clinical care and research, high interest in structured and ethical training, and a consistent emphasis on human oversight. These findings support the development of targeted educational and governance strategies to guide responsible AI integration in oncology. Research Sponsor: None.

Analyzing county-level factors of oncology fellowship program development from 2015-2025.

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Background: In the United States (US), access to oncology care varies geographically. One factor that may contribute to regional shortages is the distribution of oncology fellowship programs. We aimed to assess urban-rural trends in newly created oncology fellowship programs and to identify county-level factors associated with a higher likelihood of gaining a new oncology fellowship program. **Methods:** Data on all hematology/oncology and oncology fellowship positions in 2015 and 2025 were manually extracted from National Resident Matching Program (NRMP) data. A cross-sectional analysis was performed using data from 3,211 US counties to examine program development from 2015-2025. County metrics came from US Census data and physician density was calculated using the Doctors and Clinicians national downloadable file. A model was developed using Firth's penalized logistic regression with the following predictors using 2015 data: oncologist density per 100,000 population, median household income, percentage of population with insurance, rurality (binary with rural county coded as 1), and state-level Medicaid expansion status in 2015 (binary with expansion state coded as 1). The outcome variable was counties that gained a new oncology fellowship program (n=44). **Results:** In 2015, there were 140 fellowship programs in the US with 1 program in a rural county (0.6%). By 2025, there were 180 fellowship programs with 3 programs in rural counties (1.7%). The total fellowship slots grew from 521 to 773 at a rate of 25.2 new fellowship slots per year. The results from the regression model are shown in Table 1. Higher household median income significantly predicted fellowship establishment (OR 1.62, 95% CI 1.25-2.06, p-value <0.001), and rurality significantly predicted no fellowship establishment (OR 0.04, 95% CI 0.01-0.14, p-value < 0.001). **Conclusions:** Despite robust growth in the number of oncology fellowship programs and slots, expansion into rural and underserved areas remains disproportionately small. The majority of new programs continue to cluster in urban centers, suggesting that increases in fellowship capacity have not effectively addressed geographic disparities in care. We found that new oncology fellowship programs systematically emerge in more affluent urban counties with pre-existing oncology workforces. Strategic policy interventions including location-based incentives and rural training tracks should be considered to improve the distribution of fellowship programs. Research Sponsor: None.

Firth logistic regression model results.

Variable	Odds Ratio (OR)	95% Confidence Interval	P-Value
Intercept	0.01	0.01-0.02	<0.001
Household Median Income	1.62	1.25-2.06	<0.001
Percentage of Population with Insurance	0.74	0.51-1.15	0.17
Oncologist Density (providers per 100,000 population)	1.18	1.05-1.29	0.02
Medicaid Expansion Status	3.13	1.57-6.55	0.001
Rurality (RUCC)	0.04	0.01-0.14	<0.001

Projecting 2050 oncology workforce through historical regional trends and economic stratification.

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Background: Global oncology workforce planning increasingly relies on predictive modeling to guide policy and investment. However, projections are highly sensitive to baseline stratification. Historical models often use broad geographic regions, which may obscure economic heterogeneity within regions. We analyzed historical workforce trends and compared regional versus income-stratified projection models to quantify how perceptions of the 2050 oncology workforce burden have evolved. **Methods:** We extracted oncology workforce data from peer-reviewed literature, government and ministry of health reports, and datasets from professional organizations, including ESMO and ASCO. Cancer incidence and population projections were obtained from GLOBOCAN and UN sources. Workforce burden was defined as annual new cancer cases per clinical oncologist. Historical burden velocity was estimated using comparative data from 2012–2018 and applied to current scenario to build projections. Two models were evaluated: a regional model based on geographic trends and an economic model stratified by World Bank income groups. **Results:** Retrospective analysis (2012–2018) demonstrated substantial regional divergence. Europe showed relative stability, with workforce burden improving by -0.6% per year, while appearing comparable to Asia in 2018 (275 vs. 248 cases per oncologist). However, Asia's burden increased by $+8.6\%$ per year, indicating incidence growth already outpacing workforce expansion despite similar cross-sectional values. Using regional trends, the projected 2050 burden reached 694 cases per oncologist for Africa and 3,499 for Asia. In contrast, income-based stratification revealed a markedly steeper trajectory for the most vulnerable economies. At baseline, high-income countries (HICs) had 30,400 oncologists, upper-middle-income countries (UMICs) 46,140, lower-middle-income countries (LMICs) 6,370, and low-income countries (LICs) only 70 providers combined. Projected through historic trends, 2050 burden reached approximately 295 cases per oncologist in HICs, 1,450 in LMICs, and $\sim 11,500$ in LICs. This represents a 16-fold increase when shifting from regional (Africa: 694) to economic (LIC: 11,500) projections, while also revealing lower-than-expected burden in emerging economies. **Conclusions:** Comparing regional and income-stratified projections reveals a profound predictive divergence. Although there is limited workforce data for higher accuracy projections, geographic averaging masks extreme workforce deficits in low-income countries while overstating burden in middle-income settings. Absolute workforce growth alone is insufficient to assess preparedness. Future oncology workforce planning should prioritize income-based stratification to accurately identify and address the most critical global capacity gaps. Research Sponsor: None.

Support of academic non-clinical efforts for cancer investigator faculty at Association of American Cancer Institutes.

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Background: Academic non-clinical time (NCT) for physician scientists (PS) and clinical investigators (CI) is critical in advancing novel scientific findings from the laboratory to the community through clinical trials implemented to improve patient outcomes. CI are uniquely positioned to bridge these bench findings to bedside applications given their dual clinical and research training. However, CI face increasing competing pressures that threaten this career path. The Association of American Cancer Institutes (AACI) Physician Clinical Leadership Initiative (PCLI) conducted a national survey in 2018 to identify trends in academic NCT for the physician-trained researchers across US academic cancer centers involved in basic, translational, or clinical research. We recently reevaluated allocation of academic NCT to support faculty. **Methods:** In 2024, AACI PCLI electronically sent a 20-question descriptive survey to 95 academic cancer centers. Survey items assessed the time commitments of medical oncologists caring for patients with hematologic (including cellular therapy and stem cell transplantation) and solid tumor malignancies, as well as institutional academic NCT policies and incentive structures. Responses were summarized using descriptive statistics for quantitative items and qualitative review for open-ended responses. **Results:** Sixty centers (63%) participated. Clinical effort expectations and the amount of academic NCT varied widely by center and faculty role. The median expected effort was 30% (IQR 18%) clinical research and 50% (IQR 14%) direct patient care for CI, and 70% (IQR 20%) basic/clinical research and 20% (IQR 10%) direct patient care for PS. The most common duration of CI startup academic NCT support was 3 years, but this varied greatly across centers. Most centers required external funding to continue academic NCT (48% for CI and 72% for PS). PS were more likely than CI to receive more sustained support when some degree of extramural funding was obtained. Nearly 80% of CI academic NCT was supported by cancer center funds. Clinical trial accrual was the top priority for academic NCT for faculty engaged in clinical research, while mentoring and teaching ranked among the lowest. Incentive plans for clinically active faculty were common (85% of centers) and were largely work relative value unit (wRVU)-based, with limited incorporation of research or mentoring contributions. **Conclusions:** This survey highlights systemic failures in institutional support for CI, including inconsistent allocation of academic NCT, limited support duration, misaligned incentives, and lack of succession planning. These findings underscore the need for sustainable, multisource funding models, recalibrated incentive structures, and robust mentoring pathways to retain and advance CI for accelerating cancer research through advancing discoveries into the clinic. Research Sponsor: None.

Gender representation in first and senior authorship of phase III solid-tumor trials presented at the ASCO Annual Meeting, 2015-2025.

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Background: Authorship in clinical trials reflects access to research infrastructure, funding, and academic advancement. While gender gaps have been described, longitudinal trends and structural correlates remain poorly characterized. We examined temporal trends and determinants of gender representation among first and senior authors of phase III solid-tumor trials presented at the ASCO Annual Meeting. **Methods:** We performed a cross-sectional analysis of all phase III solid-tumor trial abstracts presented at the ASCO Annual Meeting from 2015–2025. Data included year, tumor track (breast, gastrointestinal [GI], other), funding source (industry, academic, other), and first/senior authorship. Countries were classified by World Bank income group (high [HIC], upper-middle [UMIC], lower-middle [LMIC], low-income [LIC]) and global region (North America, Europe & Central Asia, East Asia & Pacific, other). Author gender was assigned using publicly available professional profiles and validated automated tools ($\geq 90\%$ certainty). Temporal trends were assessed using Cochran–Armitage tests. Multivariable logistic regression models evaluated factors associated with women authorship. **Results:** Across 1,517 abstracts (3,034 authorships), women comprised 845 authors (27.9%). Most trials were industry funded (63.7%), focused on GI malignancies (20.1%), and based in HIC (84.9%). Using first author as reference group, senior author had higher odds of being male in multivariable analysis (OR=1.30, $p=0.001$). Women had lower odds of senior authorship compared with first authorship (aOR 0.77, 95% CI 0.65–0.90). Female authorship increased over time (24.9% in 2015–2020 vs. 30.0% in 2021–2025, $p=0.002$; aOR 1.34, 95% CI 1.13–1.58), most pronounced among senior authors (aOR 1.55, 95% CI 1.21–1.99; $p=0.006$). Women authorship varied by tumor track, with lower odds in GI compared with breast trials (aOR 0.49, 95% CI 0.38–0.64). Compared with North America, East Asia and Pacific affiliation was associated with higher odds of women authorship overall (aOR 1.54, 95% CI 1.15–2.07), strongest among first authors (aOR 1.89, 95% CI 1.25–2.91). Among senior authors, LMIC affiliation was associated with lower odds of women authorship compared to HICs (aOR 0.11, 95% CI 0.01–0.56). **Conclusions:** In the largest global oncology conference, women authorship in phase III solid-tumor trials has improved over the past decade but remains uneven, with persistent gaps in senior authorship. Research Sponsor: None.

Authorship role, era, and tumor track by gender.

Characteristic	Women (N=845, 27.9%)	Men (N=2,182, 71.9%)	P-value
Authorship role			0.002
First author	462 (54.7)	1,055 (48.4)	
Senior author	383 (45.3)	1,127 (51.6)	
Era			0.002
2015–2020	310 (36.7)	934 (42.8)	
2021–2025	535 (63.3)	1,248 (57.2)	
Tumor track			<0.001
Breast	203 (24.0)	307 (14.1)	
Gastrointestinal	150 (17.8)	456 (20.9)	
Other solid tumors	492 (58.2)	1,419 (65.0)	

Understanding the impact of gold and silver signals on ERAS applications: A survey of hematology/oncology fellowship program directors.

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Background: Since transition to virtual interviews, application and interview inflation have increased the work burden of GME recruitment. In 2021, AAMC ERAS implemented a process that allows applicants to assign signals to top programs of interest. There is a paucity of guidance on optimal use of ERAS signals (ES), resulting in apprehension and uncertainty amongst applicants and program directors (PD). For the 2026 ERAS cycle, Hematology/Oncology programs (HOP) had the option to participate in ES, in which applicants are provided 5 gold (G) signals and 15 silver (S) signals. First-hand knowledge on how ES was utilized by HOP, as well as PD perceptions about ES, may guide best practices on ES. **Methods:** During the ASCO Oncology Training Program Leadership Retreat in November 2025, an anonymous survey, assessing HOP utilization and perception of ES, and the impact of ES on recruitment practices, was launched. One PD from each HOP was invited to complete the survey while onsite. **Results:** 88 HOP (4.6% of ACGME HOP) are represented. 97% (n=85) utilized ES. Of HOP who used ES, 74% are academic. 32% are small (1-9 fellows), 43% medium (10-19 fellows), and 25% large (20+ fellows). 79% received 400+ applications. 69% reviewed applications without signals but gave higher consideration to signaled applicants. 25% only reviewed applications with signals. 28% used ES when creating rank list; 45% think ES utilization is appropriate during ranking. 85% reported ES did not alter their approach to applicants requiring visa sponsorship. 78% felt ES made the interview selection process easier. 66% were more satisfied with this year’s recruitment process compared to years without ES. The most requested change to ES was reduction of allowed signals, especially silver. 98% will use ES next year. **Conclusions:** Despite limited knowledge on ES impact on recruitment, nearly all surveyed HOP participated in ES this past year and will continue. Most HOP view ES positively though many desire changes, particularly with the number of signals. Most HOP consider all applications regardless of ES. However, some HOP with larger applicant pool are using ES as inclusion criteria for interview consideration. Signals are a strong predictor for interview invitation when internal selection criteria are met. The “borderline” applicant may be the greatest benefactor from ES, viewed similarly to the non-signaled applicant who meets internal selection criteria. Sharing PD perspectives and real-life data from this year’s ES process breeds opportunities for further improvement and increased confidence with ES.

Likelihood HOP offer interview invitation based on quality of application and signals (%; n=85).

Internal Selection Criteria	Signal	Extremely Likely	Likely	Neutral	Unlikely	Extremely Unlikely
Met	G	73	22	5	0	0
	S	42	47	8	2	1
	None	8	27	24	22	19
Nearly met	G	4	35	39	19	3
	S	0	9	52	28	11
Not met	G	0	2	12	41	45
	S	1	1	6	30	62

Advancing career-focused training: Program leader perspectives on professional development pathways in hematology/oncology fellowships.

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Background: Hematology/Oncology (H/O) fellows have diverse career opportunities post-graduation. Many fellowship programs have created specialized training pathways for trainees to support career-aligned skill development, defined here as professional development pathways (PDPs). These may include specific training for careers in laboratory/translational research, medical education, and quality improvement. There is limited data regarding utilization and perception of PDPs in H/O fellowship programs. **Methods:** We conducted a national cross-sectional survey of United States (US) H/O fellowship program leaders (PLs) to assess: (1) prevalence of PDPs, (2) perceived value of PDPs, and (3) barriers to implementation. The survey underwent content validation by three experts – program directors (PDs) in different fellowship subspecialties – who reviewed the instrument for clarity, relevance, and comprehensiveness. The survey was distributed electronically to 180 US H/O fellowship programs; responses were anonymous. **Results:** 72 responding PLs completed the survey (40% response rate). Program size ranged from 2 to 16 fellows per year. Programs from all US geographic regions were represented; 78% were affiliated with academic hospitals and 17% with academically affiliated community hospitals. Less than half (45%) report offering PDPs. The majority (78%) of PLs agree/strongly agree that PDPs provide fellows with more focused career-concordant training. Among the 32 programs with PDPs, 84% report PDPs align with fellows' post-graduation careers. Most (66%) have fellows select their PDP during the first year of fellowship; PDP selection is mandatory in 56%. Eleven distinct PDPs were described, most commonly clinical research (84%), clinical practice (69%), and basic science research (63%). Core PDP components include clinical experiences (100%), scholarly projects (88%), and structured mentorship (82%). Among the 40 programs without PDPs, 63% perceive value in adding them. Reported barriers include difficulty integrating PDPs into current fellowship structure (60%), lack of appropriate faculty mentors (55%), and lack of PD bandwidth (53%). Resources identified that would support implementation include dedicated time or support for mentorship (68%), sample curricular or implementation tools (68%), access to non-clinical infrastructure (e.g. research, quality improvement, education) (63%), and funding (45%). **Conclusions:** While most US H/O fellowship PLs view PDPs as valuable for trainee career development, less than half of responding programs currently use them. Addressing institutional and programmatic barriers and providing curricular resources, dedicated time for faculty mentors, and funding may enable wider implementation. Future studies should explore existing PDP structures and define best practices for PDP utilization. Research Sponsor: None.

Career fulfillment and intent to leave among oncology physicians: A global survey.

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Background: Burnout among U.S. oncologists has risen from 34% (2013) to 59% (2023), with global estimates of 32–45%. However, burnout is often studied in isolation rather than alongside fulfillment, distress, and intent to leave, limiting understanding of workforce attrition. With ~20% of US oncologists leaving clinical roles over the past decade, factors driving workforce attrition require a precise evaluation across international settings. **Methods:** An anonymous, cross-sectional global survey distributed via professional email (Oct–Dec 2025) assessed burnout using validated Maslach Burnout Inventory (MBI) items and evaluated associations with professional fulfillment, career regret, and intent to leave clinical practice among oncology physicians. Descriptive statistics were performed, with χ^2 /Fisher's exact tests for categorical comparisons and multivariable logistic regression to identify independent factors associated with fulfillment and intent to leave. **Results:** A total of 306 participants were included (156 non-U.S. and 150 U.S.). Clinical workload was substantial: 33.0% reported ≥ 5 clinic half-days per week, and 57.7% reported ≥ 5 inpatient service weeks annually. Administrative burden was also common, with 45.6% independently performing peer-to-peer appeals and 53.8% reporting feeling overwhelmed by this responsibility. Career satisfaction was reported by 70.6%, while job-related stress was highly prevalent (71.9%). Work frequently extended beyond scheduled hours, with 48.0% reporting moderate-to-excessive after-hours electronic medical record use. More than one-quarter of respondents (27.4%) expressed regret about pursuing a career in oncology, most attributed to poor work-life balance (69.3%) and burnout (65.3%). Despite these challenges, 50.5% reported frequent professional fulfillment and 21.7% reported very high fulfillment, particularly among U.S.-based vs. non-U.S. physicians (62.7% vs 25.0%, $P < 0.001$). Overall, 45% reported ever considering leaving practice; frequent intent to leave was higher among U.S.-based physicians (15.3% vs 7.1%, $P = 0.034$) [Table 1]. **Conclusions:** Oncologists experience a fulfillment-distress paradox, reporting meaningful professional fulfillment despite high stress, administrative burden, career regret, and intent to leave practice. This "professional dissonance" suggests that meaning and identity in oncology may persist despite insufficient institutional support but may remain fragile over time. Systems-level approaches addressing workload, professional culture, and identity formation are needed to improve physician well-being and workforce retention. Research Sponsor: None.

Key outcomes by region.

Outcome (often/always)	Non-US (n=156)	US (n=150)	p-value
Fulfillment high	39 (25.0%)	94 (62.7%)	<0.001
Consider leaving high	11 (7.1%)	23 (15.3%)	0.034

Burnout (BO) among oncology professionals in the Middle East and North Africa (MENA): Meta-analysis of pre–post COVID trends, contributors, and predictive value of single-item screening tool.

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Background: BO among oncology professionals is prevalent and may have changed following the COVID-19 pandemic. We conducted a meta-analysis of MENA studies to evaluate temporal trends in overall burnout and subdomains, identify contributing predictors, and assess the screening performance of thought of quitting oncology (TQ). **Methods:** Ten cross-sectional studies (N = 2,486) reporting Maslach Burnout Inventory (MBI) outcomes were included: six pre-COVID and four post-COVID. Pooled prevalence estimates were generated for emotional exhaustion (EE), depersonalization (DP), personal accomplishment (PA), and overall BO. Study-level meta-regression evaluated the effects of time period (pre- vs post-COVID), demographics, specialty, and their interaction on observed trends. Performance of TQ was assessed as a screening tool with pooled sensitivity, specificity, and predictive values. **Results:** The pooled prevalence of BO was 57.1% (95% CI, 40.6–72.8), increased from 48.2% in the pre-COVID period to 77.2% post-COVID ($\Delta +29.0$ percentage points). High EE increased from 41.3% pre-COVID to 70.9% post-COVID ($\Delta +29.6$ percentage points). DP increased from 36.8% to 55.8% ($\Delta +19.0$ percentage points). Low PA showed minimal change (35.4% pre-COVID vs 35.1% post-COVID; $\Delta -0.3$ percentage points). The heterogeneity estimate was high due to inter-study differences related to time period, setting, and baseline burnout prevalence, which were statistically adjusted for. TQ screening demonstrated reasonable sensitivity (82.4%) and PPV (79.9%), but low specificity (46.5%) and NPV (50.5%). Table 1 shows study-level factors contributing to BO prevalence trends. **Conclusions:** BO among oncology professionals increased post-COVID in the MENA region. The rise was driven by age-dependent effects plus time period. EE increased uniformly, while DP and low PA showed more complex patterns. A single-item question assessing TQ demonstrated strong rule-in screening utility for identifying clinicians at risk. Research Sponsor: None.

Meta-regression analysis of study-level moderators of BO prevalence.

Outcome	Best Predictor(s)	R ²	Pattern
EE	Period + Age + Med Onc. %	86.2%	Additive effects: Post-COVID, younger, more Med Onc. independently increase EE
DP	None significant	0.0%	
PA	Period \times Age	50.4%	Moderation: Age moderates pandemic effect on PA
Overall Burnout	Period \times Age	55.3%	Moderation: Age moderates pandemic effect on BO

Standardized mean differences of primary outcomes found in randomized controlled trials of wellness interventions among medical trainees: A systematic review and meta-analysis.

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Background: In the era of physician shortages, wellness interventions among medical trainees is an area of ongoing research interest in hopes of promoting clinician wellness and preventing burnout as a means of reducing clinician attrition. To our knowledge, there has not been a systematic review and meta-analysis of randomized controlled trials among medical trainees (medical students, residents, and fellows) to characterize the overall efficacy of wellness interventions in this population. **Methods:** A medical librarian searched Embase, MEDLINE, Scopus, Cochrane Central Register of Controlled Trials (CENTRAL), APA PsycINFO, and Clinicaltrials.gov from the earliest timepoint to March 2022 for randomized controlled trials of wellness interventions among medical trainees. Measures of wellness included but were not limited to depression, stress, and anxiety. Outcomes were analyzed using Standardized Mean Differences (SMD) calculated as Hedges' g to correct for small sample bias. To ensure consistent interpretation, effect sizes were adjusted for directionality such that a positive SMD indicates a beneficial outcome for the intervention group regardless of the original scale (e.g., higher happiness or lower stress). **Results:** Our search strategy resulted in 3,806 unique articles. 161 articles passed initial screening of titles and abstracts, and 46 studies were included for data extraction with dates ranging from 1980 to 2022. 23 studies with means and standard deviations reported for the primary outcome were included for meta-analysis purposes. The pooled effect size was 0.017 with a 95% confidence interval of -0.501 to 0.536 with an I^2 heterogeneity of 0.904. **Conclusions:** Our systematic review and meta-analysis of randomized controlled trials of wellness interventions among medical trainees suggest that interventions to promote wellness and prevent burnout in medical trainees, as an aggregate, have been heterogenous in design and with little-to-no overall effect. An updated search of the literature with subgroup analyses by intervention type and/or outcome measure may yield more promising results, inform future research, and better assist training programs in weighing the opportunity cost of wellness interventions, particularly in resource-constrained settings or in fields with significant rates of burnout such as hematology and oncology. Research Sponsor: None.

The hidden struggle? Mental health burden among oncology physicians globally.

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Background: Oncology physicians face demanding clinical workloads, high emotional labor, and frequent exposure to patient loss, contributing to elevated psychological distress. While burnout has been extensively described, anxiety and depression remain under-recognized and stigmatized within the oncology workforce. **Methods:** A cross-sectional, anonymous, online survey distributed internationally (October–December 2025) assessed indicators aligned to PHQ-9 and GAD-7 constructs, mental-health history, medication use, practice characteristics, and workplace context. Descriptive statistics summarized prevalence; χ^2 /Fisher’s exact tests compared subgroups; and logistic regression explored independent risk factors for anxiety/depression. **Results:** Among 209 oncology physicians who completed all mental health-related survey items (Table 1), 28.2% reported anxiety and/or depression. Female physicians had a higher prevalence than male physicians (35.4% vs 22.2%, $P = 0.037$). Anxiety/depression was higher among Hispanic/Latino vs non-Hispanic White physicians (45.5% vs 29.8%, $P = 0.015$) and among non-U.S. vs U.S.-based physicians (33.3% vs 25.7%, $P = 0.025$), though these differences attenuated in adjusted models. Medication use was strongly associated with anxiety/depression. Prevalence of anxiety/depression was rare among physicians who had never considered medication (0.9%), but common among those with past (72.7%) or current (92.9%) medication use ($P < 0.001$). **Conclusions:** Nearly one in three oncology physicians reported anxiety and/or depression, consistent with national estimates for physicians generally. Female physicians demonstrated a significantly higher burden and retained an independent risk after adjustment. These findings underscore the need for confidential and accessible mental health care within oncology professional environments and highlight the importance of addressing structural and occupational contributors to psychological distress. If oncology is to remain a sustainable profession, mental health must be treated as a core component of workforce development rather than an individual responsibility. Research Sponsor: None.

Physicians’ characteristics by anxiety/depression.

Variable	All N (%)	No Anxiety/ Depression N (%)	Yes Anxiety/ Depression N (%)	P value†
Total	209 (100.0)	150 (71.8)	59 (28.2)	
Sex				
Female	99 (47.4)	64 (64.6)	35 (35.4)	0.037
Male	108 (51.7)	84 (77.8)	24 (22.2)	
Race / Ethnicity				
Non-Hispanic White	84 (40.2)	59 (70.2)	25 (29.8)	0.015
Hispanic/Latino	33 (15.8)	18 (54.5)	15 (45.5)	
Black	11 (5.3)	11 (100.0)	—	

Burnout among early-career oncologists in Latin America: A regional survey.

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Background: Burnout in healthcare professionals negatively impacts patient care, job satisfaction, and personal well-being. Early-career oncologists are especially vulnerable due to emotional strain and heavy clinical and administrative demands. These challenges are driven by structural constraints. This study aimed to determine the frequency of burnout among early-career oncologists in LATAM and to describe workload conditions and perceived institutional resources. **Methods:** A multicenter, observational, cross-sectional, voluntary, web-based survey was conducted between Nov/2025 and Jan/2026 among young oncologists in LATAM. Participants were physicians aged <40 years or <10 years of clinical practice. Participants were invited electronically via email and social media. The survey included demographic, professional, and workplace-related variables. An adapted version of the Maslach Burnout Inventory (MBI) was performed. **Results:** A total of 105 surveys were included from oncologists across 15 Latin American countries, with the highest representation from Colombia (37.1%), Mexico (23.8%), and Argentina (8.6%). Fifty-one percent were aged ≥35 years, were female (58.1%), and worked in non-academic settings, including public (36.2%), private (32.4%), or mixed public-private practice (29.5%). 19.1% were trainees. Regarding burnout, 55.2% reported feeling emotionally exhausted due to work at least once per week (median 4; IQR 3–5), and 64.8% reported end-of-day exhaustion at least weekly (median 4; IQR 3–5). Depersonalization symptoms were infrequent (median 1; IQR 0–3), and participants reported generally high levels of personal accomplishment (median 5; IQR 4–6). Overall, 46% of participants reported adequate technological, pharmacological, and institutional support resources. Only 21% indicated that their clinical and administrative workload was manageable; 40% considered it unmanageable. Most respondents reported misalignment between salary and workload, with 61% expressing disagreement. **Conclusions:** This survey provides one of the first regional overviews of working conditions among early-career oncologists in LATAM. A proportion of participants reported limited institutional resources and unmanageable clinical and administrative workloads, highlighting structural challenges within the region’s oncology workforce. Research Sponsor: None.

Burnout survey among EOCs in LATAM.	
Questions	Median, (IQR)
I feel exhausted at the end of the workday.	4, (3-5)
I feel emotionally exhausted by my work.	4, (3-5)
I feel I work too hard at my job.	3, (2-5)
I feel frustrated by my work.	3, (1-4)
I have become more insensitive to people since I've been working.	1, (0-3)
I'm afraid that this job is making me uncaring.	1, (0-3)
I really don't care about what happens to some of my patients.	0, (0,1)
Through my work, I feel that I have a positive influence on people.	5, (4-6)
I am easily able to create a relaxed atmosphere with my patients.	5, (4-5)

Emotional burnout among oncology clinicians in Russia: Results of a national cross-sectional survey.

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Background: International reports suggest a high prevalence of burnout in oncology, but contemporary Russian data are limited. **Methods:** Anonymous online survey (June 7-14, 2025) of oncology clinicians and trainees assessing emotional exhaustion in the prior 4 weeks, related symptoms, coping strategies, and free-text views on drivers/mitigation. **Results:** 735 respondents participated (medical oncologists 46.0%, surgical oncologists 23.9%, radiation oncologists 11.6%, trainees 9.0%); 78.5% worked in public hospitals and 69.0% had no managerial role. Emotional exhaustion was reported "often" by 326 (44.4%) and "constantly" by 152 (20.7%); 157 (21.4%) reported episodic exhaustion, 74 (10.1%) rare, and 26 (3.5%) none. Patient detachment was reported sometimes by 291 (39.6%), often by 221 (30.1%), and as near-constant disengagement by 42 (5.7%). Frequent thoughts about leaving clinical work were reported by 275 (37.4%) (additional 243, 33.1% only in exceptionally difficult moments). Excessive workload was perceived often/constantly by 458 (62.3%); lack of time for breaks/recovery by 629 (85.6%) at least sometimes. Common coping strategies included sleep/rest by 592 (80.5%), support from close ones by 437 (59.5%), physical activity by 385 (52.4%), and hobbies by 251 (34.1%); 198 (26.9%) reported alcohol/medications. In free-text drivers (n=569), the most cited themes were leadership/management issues (33.7%), time/workload pressure (21.1%), patient/relative conflict and complaints (19.3%), and paperwork (12.5%); proposed mitigation included protected rest/work-life boundaries (26.3%) and workload reduction/staffing/process optimization (20.8%). **Conclusions:** Two-thirds of respondents reported frequent/constant emotional exhaustion, accompanied by patient detachment and high intent to leave clinical work. Findings support prioritizing organization-level interventions and protected recovery time alongside accessible support resources. Research Sponsor: None.

Inspiring the next generation of medical oncologists: Passion, purpose, and preventing burnout.

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Background: The National Cancer Registry of Ireland projects a doubling of cancer incidence by 2045, with an estimated shortfall of over 100 medical oncologists by 2028. This workforce gap is compounded by rising burnout, with ASCO data showing an increase in oncologists reporting at least one burnout symptom from 34% to 59% over the past decade. Alongside sustained investment in training and recruitment, addressing burnout is essential. This study aimed to identify factors influencing career interest in medical oncology and to explore perceived barriers, informing recruitment strategies and burnout mitigation. **Methods:** A cross-sectional, anonymous electronic survey assessed interest in medical oncology among medical students, interns, and junior doctors. The 20-item questionnaire examined demographics, career preferences, oncology exposure, and perceived barriers. A separate 28-item follow-up survey evaluated burnout among Irish medical oncologists and trainees. **Results:** A total of 183 early-career respondents participated (62.3% female). A response rate of 73%, respectively. Most were aged 25–34 years (69.4%), with junior residents comprising the largest group (42.6%). Key motivators for considering oncology included interest in cancer biology and treatment (54.9%), caring for cancer patients (53.2%), managing complex multidisciplinary cases (52.4%), and the dynamic nature of the specialty (51.6%). Personal experience with cancer did not influence career choice for 54%. Deterrents included high patient mortality and emotional burden (71.6%), concerns regarding burnout and work–life balance (57.5%), and prolonged training (36.1%). Oncology exposure was limited, with 38.5% reporting none; exposure most commonly occurred during junior residency (34.3%) and centered on palliative care, systemic therapies, and chemotherapy. Access to mentorship (73.8%) and increased clinical or research opportunities (62.3%) were identified as key factors to enhance recruitment. Forty-one oncologists completed the burnout survey (responses on-going). Most were aged 35–44 years, female, and working in public hospitals, with 65.9% reporting weekly workloads of 50–59 hours. Over half reported burnout at least monthly, and 75.6% reported inadequate work–life balance. Major stressors included high clinical workload, administrative burden, lack of protected academic time, staffing shortages, and moral distress. Despite high professional satisfaction (82.9%), 43.9% had considered reducing hours or leaving practice due to work-related stress. **Conclusions:** Ireland faces a significant oncology workforce challenge. Early exposure, structured mentorship, and targeted strategies to address workload and burnout are critical to strengthening recruitment and sustaining the oncology workforce. Research Sponsor: None.

Turning silence into rhythm: Outcomes of a school-based *Cancer Olympiad* in India.

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Background: Late-stage presentation continues to account for nearly 70% of cancer diagnoses in low- and middle-income countries, exposing the gap between medical progress and public participation. Traditional awareness drives often falter in communities shaped by stigma, low literacy, and fear of cost. The *Cancer Olympiad* was conceived as an arts-based, school-centered intervention harnessing creativity, performance, and peer learning to transform knowledge into shared action. By positioning children as credible messengers, it aimed to bridge the emotional and educational distance between health information and household practice.

Methods: A quasi-experimental, mixed-methods study engaged 25,000 students (grades 1–12) and 2,500 families across 125 urban and rural schools in Udaipur District, North India. Schools implemented structured creative modules—drawings, performances, debates, health exhibitions, reflective writing, and parent-child tasks—culminating in an interschool finale attended by educators, clinicians, and policymakers. Knowledge, attitude, and behavior (KAB) outcomes were measured at baseline and three months post-intervention using validated questionnaires adapted for regional literacy levels. Secondary endpoints included stigma reduction, screening and vaccination uptake, tobacco-cessation behavior, and community-engagement indices such as school-initiated health clubs and family advocacy actions. Qualitative interviews and focus groups explored cultural receptivity, emotional learning, and pathways of sustained engagement. **Results:** Knowledge of cancer risk factors and early-warning signs improved by 23 percentage points ($p < 0.001$), while recognition of curability rose from 58% to 83%. Stigma scores fell by 0.35 SD, and 19% of participating families undertook at least one preventive action—screening, vaccination, quitting tobacco, or seeking medical evaluation—within six months. Primary-health-center screening visits increased by 17% compared with matched control blocks, and teacher-reported health-dialogue frequency in classrooms quadrupled. Qualitative analysis revealed recurring themes of “children as catalysts of credibility,” “art as emotional pedagogy,” and “community pride replacing fear.” Implementation fidelity exceeded 90%, school-level engagement remained high, and more than half the schools adopted the Olympiad as an annual, self-sustained event. **Conclusions:** The *Cancer Olympiad* demonstrates that child-led, arts-integrated education can align biomedical understanding with cultural identity, shifting awareness into collective prevention. When stories and performances enter homes, they humanize cancer knowledge and normalize early action. Embedding narrative and creativity within oncology outreach may extend medicine’s reach beyond clinics—turning silence into rhythm, and rhythm into a movement of lasting change. Research Sponsor: None.

Preparedness of internal medicine residents for oncologic emergencies and end-of-life discussions in a community training environment.

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Background: Internal medicine (IM) residents often serve as first responders for patients with cancer in community hospitals, where oncologic emergencies frequently present before sub-specialty involvement. Yet structured heme-onc and palliative training is limited. Preparedness in community settings - where workflow and resource constraints may heighten gaps between trainee knowledge and confidence - remains under-examined. **Methods:** We conducted a cross-sectional electronic survey of IM residents at a university-affiliated community hospital (Oct 17 - Nov 18, 2025). It included 14 vignette-based knowledge items, 8 confidence ratings (0-10), and questions on demographics, oncology exposure, and perceived barriers. Primary outcomes were total knowledge score (0-14) and composite confidence scores. Multivariable regression assessed associations between resident characteristics, knowledge, and confidence. **Results:** Thirty-three of 58 residents participated; mean age was 30.1 years, and 82% had not completed a hematology-oncology rotation. Knowledge was uniformly high (mean 13.0; SD 1.0) across key domains including febrile neutropenia and hospice eligibility. Confidence, however, was substantially lower and more heterogeneous (emergency mean 5.78; end-of-life mean 5.84). Senior trainees demonstrated greater confidence in both domains ($\beta = 1.62$ and 1.60 ; $P < .001$), and caring for ≥ 3 oncologic patients in the prior month independently predicted higher communication confidence ($\beta = 1.87$; $P = .04$). Residents identified recurrent barriers: delays in triage (72.7%), limited family availability (72.7%), language barriers (57.6%), and difficulty obtaining early intravenous access (39.4%). Free-text responses emphasized the need for concise reference tools, structured exposure, and simulation-based practice. **Conclusions:** IM residents demonstrated excellent factual knowledge but substantially lower confidence in managing acute oncologic conditions and conducting serious-illness conversations. Confidence was influenced more by experience and workflow realities than by knowledge alone. Our findings highlight an actionable opportunity. Experiential curricula, streamlined clinical pathways, and integrated oncologic teaching may strengthen frontline preparedness for high-stakes cancer care in community settings. Research Sponsor: None.

Resident demographics, clinical exposure, and selected barriers (N = 33).

Selected measure	n/N (%)
Resident sex: male	20/33 (60.6%)
Resident sex: female	11/33 (33.3%)
Training level: PGY-1	15/33 (45.5%)
Training level: PGY-2	8/33 (24.2%)
Training level: PGY-3	10/33 (30.3%)
Oncology exposure: 0-2 cancer patients/month	18/33 (54.5%)
Oncology exposure: ≥ 3 cancer patients/month	10/33 (30.3%)
Barrier: workload or paging delays	13/33 (39.4%)
Barrier: cultural or linguistic challenges	19/33 (57.6%)

Benefits of utilizing experiential learning in a medical school cancer survivorship course.

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Background: Cancer survivorship care remains underemphasized in medical education despite a growing population of cancer survivors with complex long-term needs. Identifying effective strategies to integrate survivorship education into the medical curriculum is essential. Kolb's experiential learning theory, which posits that effective learning occurs through iterative cycles of concrete experience, reflective observation, abstract conceptualization, and active experimentation, may offer a structured framework well suited to teaching survivorship care. **Methods:** We evaluated the effectiveness of utilizing repeated Kolb's cycles to teach a 15-week cancer survivorship course during our 2024 Fall semester. 12 learners (9 pre-clerkship medical students and 3 premedical students) attended weekly sessions mediated by the instructor and invited guests. In-class experiences were paired with reflective homework assignments also tasking students to develop new concepts in 4 domains of interest: patients as survivors (PS), caregivers' issues (CI), illness experience (IE), and interprofessional care (IPC). Students shared concepts in the next session then began the Kolb's cycle again. For their final assignment, they interviewed a cancer survivor then created a treatment plan applying the concepts they developed during the course. An anonymous post-course survey assessed learner satisfaction and perceptions of Kolb's cycle, and a one-year follow-up survey evaluated comfort addressing survivorship issues during clerkships and the course's impact on survivor care. **Results:** Students generated 259 new concepts (PS: 74; CI: 49; IE: 56; and IPC: 80) across the course and applied an average of ten self-developed concepts per student on the final assignment. On the immediate post-course survey, 12/12 students were highly satisfied with the course and 9/12 students rated all four stages of Kolb's cycle as extremely or mostly helpful. A year later, 6/9 medical students now on clinical clerkships responded to a follow-up survey. Most reported that the course had a significant lasting impact on their understanding of survivorship issues (4/6) and overall patient management (4/6). Qualitative comments describe greater holistic awareness, comfort with difficult conversations, and attention to survivorship-focused referrals. Students also reported being extremely or mostly confident addressing survivorship issues in the following domains: PS 4/6, CI 3/6, IE 4/6, and IPC 3/6. **Conclusions:** Kolb's experiential learning theory is an effective framework for teaching a cancer survivorship course to pre-clerkship medical students. Students were highly satisfied with this learning method and able to use this model to successfully develop and apply new concepts. Follow-up during clerkships demonstrated sustained learning and a lasting capacity to apply this material to new patient encounters. Research Sponsor: None.

Utilizing large language models for lung cancer patient education compared to publicly available information.

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Background: The advent of the internet, social media, and more recently of large language model (LLM) platforms has led patients to seek information about cancer directly through digital sources. Complete, readable, and accurate information could reduce physician time clarifying information and increase patient self-activation, especially in low-resource environments. We evaluated the quality of publicly available information provided for the five most common lung cancer questions asked on the internet with information provided by the American Cancer Society (ACS), the National Cancer Institute (NCI), ChatGPT, and Gemini. We hypothesized that LLM platforms could produce readable and information quality equivalent to that found on nationally recognized websites. **Methods:** ChatGPT (OpenAI, logged-out version, accessed 12/14/25) was queried to determine the five most common questions patients with lung cancer ask. These question prompts were used to generate responses in ChatGPT (OpenAI, logged-out version, accessed 1/13/26) and Gemini (Google, version 3 Flash, 1/13/26). Additional passages were extracted from NCI and ACS patient education web pages, and all passages were de-identified and reformatted with links and references removed. The deidentified passages were evaluated by seven providers representing medical oncology (n=4), radiation oncology (n=1), surgical oncology (n=2), and onco-primary care (n=1) using Information Quality Grade, Global Quality Scale, Error Classification, Comprehensibility, and Confabulation. Readability was determined via Flesh-Kincaid grade level. **Results:** Readability was similar between passages, ranging from grade levels 6.9-8.2. LLM's were rated higher on information quality with fewer total errors. Providers were able to discern LLM content in > 50% of the cases but considered human-generated content as LLM in about one third of cases. The most frequent error reported in LLMs was too little information (n=19) and in websites too much information (n=29). **Conclusions:** LLMs can provide more succinct high-quality information for patients with lung cancer compared to current publicly available websites. The information provided by LLMs is accessible to the public, with potential positive implications for low-resourced populations. Further research is urgently needed to understand the potential of LLMs to improve lung cancer outcomes, such as patient self-activation and adherence. Research Sponsor: None.

Source	Readability (Grade level)*	Info Quality* (1 high - 4 low)	Global Quality Scale* (5 high - 1 low)	% Comprehensibility	% Confabulation	Total # of errors	% Considered LLM
ACS	7.8	1.7	3.7	75.0	7.5	28	30.6
NCI	8.2	1.9	3.1	75.0	7.5	43	35.3
ChatGPT	6.9	1.5	4.3	100.0	2.6	20	63.2
Gemini	8.1	1.5	4.4	52.3	2.6	19	64.1

*Averages across all 5 questions.

Psychological burden and burnout among regional healthcare providers communicating hereditary tumor findings: A multi-institutional communication skills training implementation study.

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Background: Psychological burden among healthcare providers in precision oncology affects workforce sustainability. In regional settings with limited genetic counseling resources, providers face compounded stress disclosing hereditary tumor findings to cancer patients. This implementation study, supported by an MSD Medical Education Grant for advancing genetic medicine understanding in biomarker-based precision oncology, assessed structured communication skills training to address provider psychological burden. **Methods:** We deployed a standardized curriculum across seven regional hospitals in Yamagata Prefecture, Japan, in 2025, integrating SHARE protocol training (Fujimori et al., JCO. 2014) with modules on *BRCA* testing, microsatellite instability, and genomic profiling disclosure. Implementation strategies included professional actors experienced in medical scenarios, facilitated role-playing, and videotaped quality monitoring. This single-arm pre-post intervention study used a mixed-methods evaluation with questionnaire surveys and qualitative inquiries with a modified grounded theory through an inductive thematic analysis until theoretical saturation. **Results:** Among 263 participants (median experience 10 years, range 0-36), including physicians, nurses, genetic counselors, pharmacists, and administrative staff, 93% had baseline psychological burden and 92% reported anxiety when communicating hereditary tumor findings. Psychological burden and anxiety post-intervention decreased in 89% ($p < 0.001$) and 84% ($p < 0.001$), respectively, with 89% reporting an improved hereditary tumor understanding ($p < 0.001$). A qualitative analysis of 18 semi-structured interviews revealed five critical themes: persistent institutional barriers to genetic counseling in resource-limited regions, profound emotional exhaustion from simultaneously managing terminal illness and germline implications, role-play enabling authentic skill rehearsal without patient risk, moral distress balancing patient autonomy against family cascade obligations in limited-prognosis contexts, and the critical need for sustained peer support. **Conclusions:** Multi-site communication skills training including experiential role-play significantly reduced provider psychological burden and anxiety while improving hereditary tumor knowledge across diverse regional healthcare teams. A theory-driven mixed-methods evaluation strengthened intervention rigor. This study supports industry-academic partnerships addressing workforce sustainability while advancing genomic medicine equity in underserved settings. National dissemination with sustained outcome assessment will establish this model as a scalable framework addressing the global workforce crisis in precision oncology. Research Sponsor: MSD Medical Education Grant; MSDG20230507001.

Escape to learn: A team-based gamified educational experience for hematology/oncology fellows.

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Background: An escape room is a team-based activity in which participants collaborate to solve puzzles within a fixed time limit and escape. Prior studies demonstrate high learner satisfaction and improved teamwork and communication with medical education escape rooms. To date, no published reports describe an escape room designed specifically for hematology/oncology (hem/onc) fellows. As part of Hem/Onc Curriculum, we designed and implemented a hem/onc-focused escape room and evaluated learner satisfaction and perceived learning impact. **Methods:** The escape room was designed using evidence-based learning science principles (Table 1). Teams worked to solve sequential puzzles, centered on a patient case, addressing key hem/onc concepts, including transfusion medicine, peripheral blood smears, lymphoma classification, and coagulation disorders. Each solved puzzle revealed additional patient laboratory and pathology data. Successful completion required teams to diagnose the patient and select appropriate treatment. Following the activity, teams participated in a facilitator-led debrief focused on team dynamics, communication, and problem solving. Teams observed each other and shared feedback. A larger group debrief co-led by chief fellows and faculty reviewed learning objectives and key takeaways. Learner outcomes were assessed using a post-activity survey evaluating satisfaction, engagement, and impact on learning. **Results:** Eighteen learners participated, including 14 hem/onc fellows, 1 APP hem/onc fellow, and 3 internal medicine residents. Three of four teams escaped within 1 hour (mean completion time, 52 minutes). All participants provided positive verbal feedback. Fifteen learners completed the post-activity survey, and all respondents reported satisfaction with the activity and would recommend it for future fellows. One-word descriptors included “engaging,” “fun,” and “challenging.” Most respondents (93.3%) agreed that the activity reinforced key hem/onc concepts and improved confidence in clinical problem-solving. All learners felt the activity supported learning, and 93.3% reported that collaboration enhanced the learning experience. Participants identified team-based problem solving, clinical application, and interactive puzzles as the most effective components. **Conclusions:** A hem/onc escape room resulted in high learner satisfaction and reinforced hem/onc knowledge and clinical problem-solving. This feasible, fun, and innovative activity complements traditional fellowship education by leveraging adult learning principles through gamified, team-based learning and should be incorporated into training programs’ curriculum. Research Sponsor: None.

Learning science principles applied in a hem/onc escape room.				
Active Learning	Belonging	Contrasting Cases	Debriefing	Deliberate Practice
Elaboration	Generation	Listening and Sharing	Reward	Worked Examples

Career destination effects of receipt of the American Society of Clinical Oncology Young Investigator Award.

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Background: Successful funding during training has long been recognized as a predictor for a career in academic medicine.¹ Among hematology and medical oncology fellows, the American Society of Clinical Oncology Young Investigator Award (ASCO YIA) often serves as a fellow's first attempt to obtain extramural research funding. Whether receipt of the ASCO YIA predicts for an academic career in hematology and medical oncology is unknown. **Methods:** A retrospective, exploratory analysis was conducted using data from 15 consecutive graduating classes from the fellowship program of a large destination cancer center. For each graduate, data regarding submission of an ASCO YIA proposal and the results of each submission were collected. To determine if receipt of the ASCO YIA correlated with an early career and retention in academia, we explored data on each graduate's initial and current job placement. Correlation of each physician's area of subspecialization compared to the focus of the ASCO YIA proposal was also investigated. **Results:** From 2011–2025, a total of 214 graduates were identified, and 211 (98.6%) applied for the ASCO YIA. Eighty-three (39%) applicants were awarded the ASCO YIA. Among the entire cohort of applicants for the ASCO YIA, 157 (74%) graduates sought an initial career in academia. Of the fellows who were awarded the ASCO YIA, 74 of 83 (89%) started their careers in academia compared to 83 of 128 (65%) for those who were not awarded the ASCO YIA (odds ratio [OR], 4.46; 95% confidence interval [CI], 2.04 to 9.74; P = 0.0002). Of the fellows awarded the ASCO YIA, 66 of 83 (80%) currently remain in academia compared to 51 of 128 (40%) for those who were not awarded the ASCO YIA (OR, 2.57; 95% CI, 0.29 to 1.60; P = 0.0038). Of the fellows who were awarded the ASCO YIA and sought careers in academia, 69 of 74 (93%) began their academic career in the same subspecialty as the focus of their ASCO YIA proposal, and 59 of 66 (89%) remain in that subspecialty. **Conclusions:** Among applicants for the ASCO YIA, recipients are more likely than non-recipients to begin careers in academic hematology and medical oncology positions and to remain in academia. In addition, early funding through the ASCO YIA predicts for retention of academic hematologists/oncologists in their subspecialty of early research and funding. These results emphasize the need for enhanced funding to support these awards with a goal of promoting early careers in academic hematology and medical oncology. To further validate these results, a multi-institutional analysis is planned. Reference: 1. Brass LF, Akabas MH, Burnley LD, Engman DM, Wiley CA, Andersen OS. Are MD-PhD programs meeting their goals? An analysis of career choices made by graduates of 24 MD-PhD programs. *Acad Med.* 2010;85(4):692–701. Research Sponsor: None.

Oncomovies: Cancer in cinema from early sound film to 2025.

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Background: Cinema has played a relevant role in shaping public representations of cancer, influencing social perceptions of illness, medical care, prognosis, and the patient–physician relationship. Over time, cancer narratives in film have evolved alongside medical knowledge, therapeutic advances, and cultural attitudes toward disease, suffering, and death. Building on previous analyses presented at ESMO (2012) and a systematic review published in 2014, this study provides an updated overview of how cancer has been portrayed in cinema up to 2025.

Methods: We conducted a cross-sectional descriptive analysis of feature films in which cancer played a prompt, relevant, or plot-driving role. Films were identified through major movie databases (IMDb, AllMovie, MyMovies) and previous curated filmographies. Each film was independently reviewed and coded using a standardized data extraction framework including year of production, country, patient demographics, cancer type and anatomical classification, stage or phase of disease when specified, diagnostic and therapeutic representations, health-care professionals' roles, and narrative outcome. Data were aggregated and analyzed descriptively. **Results:** A total of 255 films produced between 1939 and 2025 were included. The majority originated from North America and Western Europe, with a progressive increase in geographic diversity after 2000. Solid tumors accounted for approximately 75% of depicted cancers, followed by hematologic malignancies (about 19%). The most frequently represented cancer types were breast cancer, brain tumors, leukemia, and lung cancer, while several high-incidence cancers in real-world epidemiology remained underrepresented. Central nervous system tumors and breast cancer were the most common anatomical classifications. When reported, cancer was often portrayed at an advanced or metastatic stage. Treatments were shown in most films, with chemotherapy being the most frequently depicted modality, followed by surgery and palliative care. Healthcare professionals appeared in the majority of narratives, though with varying degrees of realism. Death remained a common narrative endpoint. **Conclusions:** This updated analysis confirms persistent narrative patterns in cinematic representations of cancer, including a preference for younger patients, specific tumor types, and dramatic disease trajectories. While recent films show increased attention to diagnostic processes and treatment complexity, discrepancies between cinematic portrayals and epidemiological reality remain substantial. Oncomovies may represent both a valuable cultural resource for medical education and a potential source of misconceptions, underscoring the importance of critical engagement with cancer narratives in film. Research Sponsor: None.

Training fellows in genomic oncology: A pilot team-based workshop.

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Background: Genomic oncology (GO) is central to diagnosis and management of patients with cancer. However, GO training is an unmet need for hematology/oncology (H/O) fellows. The Training Fellows in Genomic (TFIG) Working Group developed a team-based GO workshop, with goals of creating a “train-the-trainer” experience for faculty and improving fellows’ GO knowledge. **Methods:** Ten North American H/O fellowship programs participated in the TFIG pilot. Cross-disciplinary faculty (H/O fellowship program leaders [PL] with local GO faculty experts) participated in (2) 60-minute virtual “train-the-trainer” sessions on team-based learning (TBL) and GO content. Faculty then led (2) 120-minute case-based TBL workshops for fellows at their home institutions: 1) methodology and selection of cancer gene panels, and 2) result interpretation and clinical utility. Participating faculty and fellows were sent a post-workshop survey. Fellows received an additional follow-up survey seven months after workshop participation. **Results:** 96 fellows and 24 faculty participated in the TFIG workshop. 68 fellows (71%) and 21 faculty (88%) completed the post-workshop survey; 60 fellows (62%) completed the follow-up survey. In addition to H/O PL, workshop faculty included pathologists (n=2), genetic counselors (n=2), laboratory geneticists (n=2), medical geneticists (n=1), and genomics professors (n=1). Most (90%) felt train-the-trainer sessions were helpful for workshop preparation. All agreed/strongly agreed that the workshop will help fellows as practicing oncologists. All would recommend the workshop to other fellowship programs. While most fellows (88%) reported using GO in their clinics, 97% had no prior training during fellowship. The majority reported that their pre-workshop knowledge of GO was poor (31%) or fair (43%). Almost all (91%) agreed/strongly agreed that the workshop will help their clinical practice, and most (88%) would recommend this workshop to other fellows. At seven months post-workshop, more than half (52%) of fellows reported greater interactions with genetics professionals and increased use of web-based GO resources introduced during the workshop; 32% reported using knowledge gained during the workshop to educate others. **Conclusions:** Formalized training in GO is required for H/O practice and remains an unmet need for H/O fellows. Our TFIG pilot demonstrated that an interactive GO workshop is feasible through implementation of standardized faculty training and a case-based TBL format. Faculty found the “train-the-trainer” model helpful and noted TFIG content is effective and recommended for fellows. Fellows reported sustained improvements in GO knowledge, increased use of web-based GO tools explored during the workshop, and greater interdisciplinary engagement with GO experts. These findings support the TFIG model as a scalable and effective means to deliver expert-led, team-based GO training for H/O fellows. Research Sponsor: U.S. National Institutes of Health; R25CA168544.

Experiences of a cancer survivorship elective in a US medical school: The first 10 years.

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Background: Cancer survivorship care is an increasingly important competency in medical education, but early introduction in medical school curriculum is uncommon, and longitudinal evaluation of survivorship curricula is limited. We report here our 10 years' experience of a dedicated UME cancer survivorship course. **Methods:** A 15-week elective was offered to pre-clerkship Y2 students (5-14 participants /y) annually from 2016-25, including one fully remote class in 2020. Attendees had a year of prior longitudinal clinical experience. Key topics of the curriculum were developed from ASCO and NCCN Survivorship Guidelines. Sessions were facilitated by a clinical oncologist (MCF) and co-hosted by rotating guests with clinical experience in cancer care. These included a primary care physician, survivors, caregivers, a medical geneticist, a palliative care nurse, social workers, a nutritionist, and a PT/OT specialist. The final assessment was a proposed individualized survivorship care plan (SCP), based on a one-to-one interview with a survivor. Students completed pre- and post-course surveys, assessing satisfaction with course structure, change in confidence dealing with topics covered, and the course's influence on specialty choice. Likert scale responses (1-4) were analyzed using paired t-tests and Cohen's d for confidence changes. Descriptive statistics summarized satisfaction and career impact. **Results:** Of 102 students participating over 10 years, 90 returned pre/post surveys (88%). Students overall reported a high level of satisfaction with the course (mean 3.60/4, SD 0.49), particularly valuing guest sessions with survivors (3.84/4), caregivers (3.86/4), and social work (3.91/4). They felt the course was adequately rigorous for the M2 level (3.59/4), provided useful skills for future interprofessional collaboration (3.60/4), and was effectively tested by the final assignment (3.47/4). Multimedia assignments were the most valuable to students (3.47/4). Confidence in speaking to and caring for cancer survivors increased very significantly post-course (mean change +0.75, $t = 7.81$, $p < 0.001$, $d = 1.02$), and students felt that the skills they learned were relevant to their future careers (3.53/4). Over half of students (56%) indicated the course strengthened their interest in pursuing an oncology-focused field while another 26% indicated an interest in remaining committed to cancer-related issues in some capacity. **Conclusions:** A dedicated undergraduate cancer survivorship curriculum is novel, feasible, sustainable, and highly valued by medical students. The course produced significant gains in confidence, increased interest in oncology, and highlighted the educational value of interprofessional, survivor-centered learning. Early integration of survivorship education may improve future physician comfort with holistic cancer care and enhance career interest in the field. Research Sponsor: None.

From pathophysiology to prognosis: An oncology curriculum for interdisciplinary palliative care specialists.

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Background: Integrating specialty palliative care (SPC) improves outcomes for patients with advanced cancer, yet effective collaboration requires a shared understanding of the clinical condition. Oncologists report that SPC professionals lack familiarity with new oncologic therapies and their implications for prognosis and decision-making—a gap that can hinder the quality and timing of communication amongst providers as well as goals of care conversations with patients and surrogates. Addressing this gap may enhance the value of SPC consultations and support more aligned co-management of patients with advanced malignancies. **Objective:** To design, implement, and evaluate an interdisciplinary oncology curriculum for SPC health science professionals (HSPs) at a single institution, with the goal of enhancing SPC's knowledge and confidence in caring for patients with advanced solid-tumor malignancies. **Methods:** An informal needs assessment was conducted with oncologists and palliative care physicians to inform content development. The topics identified to discuss included oncologic terminology, therapeutics, side effects, and disease trajectories for breast, lung, colon, and pancreatic cancer. The curriculum comprised five synchronous virtual sessions delivered over five months. Sessions incorporated active learning strategies grounded in principles of Andragogy and Self-Determination Theory. Medical oncologists reviewed content and participated in sessions. Electronic flashcards were distributed to provide learners asynchronous background knowledge and for post-session reviews. A paired pre/post survey assessed knowledge (via 19 multiple-choice questions for physicians, APPs, and pharmacists) and SPC's attitudes (via 5-point Likert scale). **Results:** Of 79 invited SPC HSPs across nine sites, 51 participated: 17 APPs, 26 physicians, 1 pharmacist, 7 social workers, and 1 chaplain. 87% of the participants attended at least 4 of the 5 curriculum sessions. 67% of the participants utilized the flashcards. Among the physicians, APPs, and pharmacists completing knowledge assessments (pretest n= 42, posttest n= 35), mean scores improved from 53.9% (SD 13.6) to 67.8% (SD 13.1), $p < 0.001$. Confidence in applying oncology concepts increased from 2.7 (0.8) to 3.5 (0.5), $p < 0.001$. Perceived importance of this education remained high throughout (pre 4.2 [0.6], post 4.1 [0.8], $p = 0.609$). **Conclusions:** This oncologist-informed curriculum significantly improved SPC's oncology knowledge and confidence. By equipping specialty palliative care teams with stronger oncologic foundations, this curriculum offers a scalable approach to enhancing interdisciplinary collaboration—potentially improving consultation quality, communication, and shared decision-making for patients with advanced cancer. Research Sponsor: Thomas Nimick Jr. Competitive Research Fund, Shadyside Foundation.

Enhancing hematology-oncology education through a structured AI-based board review series: An ASCO Leadership Development Education Scholars initiative.

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Background: As an ASCO Leadership Development Education Scholars Initiative, structured board review is essential for hematology–oncology fellows to consolidate knowledge, support examination readiness, and strengthen clinical decision–making in an increasingly complex therapeutic landscape. Existing approaches are often fragmented and insufficiently tailored to trainee–specific knowledge gaps. To address this need, we developed a pilot, structured board review series within a single academic fellowship program integrating peer–led teaching, faculty mentorship, and anonymous question–based learning aligned with board examination content and real–world oncology practice. **Methods:** A longitudinal, fellow–led board review curriculum was implemented within a hematology–oncology fellowship program with subspecialty faculty mentorship to ensure clinical accuracy and guideline–based context. Fellows engaged through weekly anonymous board–style multiple–choice questions distributed via Microsoft Teams polls. Questions were curated from ASCO Self–Evaluation Program materials based on high–yield topics identified from ASCO and ASH in–training examinations, with AI–assisted topic prioritization. Objective knowledge acquisition was assessed using identical pre– and post–session questions. Each topic spanned one month with eight pre–session questions and the same eight questions administered post–session. Across five sessions, five fellows answered eight questions per session, yielding 200 learner responses for both pre– and post–intervention assessments. This initiative was conducted as an educational quality improvement project and did not meet criteria for human subjects research. **Results:** Educational gains were observed across multiple high–yield oncology domains, including molecular biomarker interpretation, guideline–directed therapy selection, toxicity recognition and management, and familiarity with emerging treatment modalities. In the pre–test assessment, 63% of questions were answered correctly (126 of 200 responses). Following the educational intervention, 98% of questions were answered correctly (196 of 200 responses), representing an absolute improvement of 70 correct responses (35%). **Conclusions:** This structured, fellow–led, faculty–supported board review initiative represents a feasible and effective model for delivering high–yield oncology education within hematology–oncology fellowship training. The curriculum demonstrated measurable knowledge gains, high trainee engagement, and successful integration of AI–informed topic selection with in–training examination data, highlighting the potential for learner–centered curricula to modernize subspecialty medical education and expand to more fellowship programs. Research Sponsor: None.

Impact of liquid biopsy training on real-world testing practices for advanced NSCLC across Latin America: The OMEGA (LACOG 0424/GBOT) survey.

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Background: The therapeutic landscape of non-small cell lung cancer (NSCLC) has evolved with advances in genomic profiling and the integration of next-generation sequencing (NGS) platforms. Liquid biopsy (LB) enables minimally invasive biomarker-guided treatment across solid tumors, including NSCLC. However, disparities in physicians' familiarity with these tests and limited access to continuing education can affect their optimal implementation. Despite the potential benefits, access to and utilization of LB testing across LATAM remains unexplored. In this LATAM survey, we evaluated oncologist's attitudes and practices related to LB. **Methods:** A cross-sectional survey was conducted to evaluate oncologists' attitudes, practices, and expectations regarding LB use in NSCLC across LATAM. A 33-item questionnaire was distributed between August and December 2024 through the Brazilian Thoracic Oncology Group (GBOT), the Brazilian Society of Clinical Oncology (SBOC), and the Latin American Consortium for Lung Cancer Research (CLICaP). Descriptive statistics summarized the data, and associations were assessed using chi-square or Fisher's exact tests for categorical variables and Student's t-test or Wilcoxon rank-sum test for continuous variables. **Results:** Among the 178 respondents, 84.8% were from Brazil. Most of the oncologists had completed their oncology training between 5 and 20 years prior (61.2%). In terms of clinical exposure, 43.3% reported treating 10 to 30 new patients with lung cancer annually. While 72.5% reported prior use of LB, only 30.0% expressed confidence in interpreting the results. In addition, 50% of respondents (n = 89) reported no formal training in LB over the past three years. Among those reporting educational updates, the most prevalent source of educational updates was ASCO-affiliated platforms (43.8%). Respondents who had received dedicated training during this period were significantly more likely to request LB testing (87.2% vs 60.7%; $p < 0.0001$) and to report confidence in interpreting ctDNA results (86.0% vs 53.9%; $p < 0.0001$). The most frequently used techniques were DNA-based NGS (38.8%) and reverse transcription polymerase chain reaction (RT-PCR) (43.5%). Most respondents (96.1%) anticipated an increase in the use of LB over the next five years. **Conclusions:** The OMEGA survey indicates that while LB use is common among LATAM oncologists, formal training remains limited. Educational exposure significantly increased both the likelihood of requesting NSCLC testing and confidence in molecular report interpretation. Thus, future efforts implementing structured educational programs are very needed to support the equitable and effective adoption of liquid biopsy throughout LATAM. Research Sponsor: None.

Applying learning science principles (LSP) in a workshop (WS) for hematology and oncology (HemOnc) trainees (HOT) about how to use artificial intelligence (AI) in medical education (MedEd) and clinical practice (CP).

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Background: AI use is ubiquitous among HOT and healthcare workers, but with variable base knowledge and comfort level. Its indiscriminate use may be problematic. To address this educational gap, we developed a WS for HOT to assess their use of AI and educate them on how to employ it in MedEd and patient-centered CP based on LSP. **Methods:** A faculty member developed a WS on how to use AI in MedEd and CP based on LSP of analogy, contrasting cases, elaboration, generation, and question driven learning. The WS was for HOT, but faculty could join. It had 3 sections: introduction to basic concepts of AI; principles of the Health Insurance Portability and Accountability Act and protected health information; AI in MedEd; and AI in CP. Sections had real use case examples of AI, for participants to interact, ask questions, and share their personal use cases. HOT were invited to compare and generate examples during the WS, based on their educational and clinical experience and needs. Participants' AI use and self-perceived and objective knowledge about it were assessed in a pre activity survey, a post WS survey, and a post 8 week survey to evaluate long term learning. **Results:** A 2 hour WS with 9 HOT and 2 faculty was completed successfully. 10 participants completed the pre WS survey, and 11 completed the post WS and the post 8 week surveys. 100% of them used generative AI tools before the WS, while 10% had prior training in AI. 90% used AI in personal life and MedEd, 70% used it in CP, and 30% in academic research. Table 1 shows participants' self-assessed knowledge of AI, comfort level in using AI for MedEd and CP, self-assessed preparedness to implement AI in MedEd and CP, and objective knowledge. 8 weeks post WS, 91% of participants reported increased AI use in CP, leading anywhere from slight to significant decreases in time spent on documentation tasks for 91% of them. In MedEd, 73% reported increased AI use, and 82% described slight to significant improvement in the quality of time dedicated to it. 82% described the WS as extremely relevant to their daily responsibilities, and 91% reported confidence navigating ethical and privacy risks of AI in HemOnc. All participants were interested in having a similar WS in the future. **Conclusions:** An LSP based WS about AI increased the self-perceived and objective knowledge of HOT about using this tool in MedEd and CP. It also increased HOT comfort level, preparedness, and efficiency using AI. With the ubiquitous use of AI by HOT, ongoing education about it focused on supporting high-quality patient care should be a part of fellowship curriculum. Research Sponsor: None.

	Pre WS %	Post WS %	Post 8 week %
Moderately/Very knowledgeable about AI	50	91	100
Comfortable using AI in MedEd	60	82	82
Prepared to implement AI in MedEd	30	91	73
Comfortable using AI in CP	40	73	82
Prepared to implement AI in CP	0	91	73
Correct answers on objective assessment	53	68	71

Enhancing oncology board exam readiness through a longitudinal review curriculum.

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Background: Due to the rapid pace of medical advancements in cancer care in recent years, passing the medical oncology board exam is a challenging task, with an average failure rate of 8% for first-time test takers since 2020 (American Board of Internal Medicine – ABIM). A needs assessment performed within our large academic Hematology/Oncology (H/O) fellowship program revealed that only a modest majority of fellows felt adequately prepared for medical oncology and malignant hematology board exam topics (53% and 63%, respectively). To improve fellow satisfaction, confidence, and exam performance, we developed a longitudinal board review curriculum that ran parallel to standard didactics. **Methods:** From August 2024 to May 2025, H/O fellows at The Ohio State University participated in a structured, longitudinal board review series covering medical oncology and malignant hematology topic areas. Faculty led monthly Zoom sessions focused on rapid content review and interactive question practice aligned with high-yield concepts per the ABIM Oncology exam blueprint. Questions from existing board review materials were utilized in session creation. Fellows completed pre- and post-surveys assessing satisfaction with the curriculum and confidence across 20 oncology topic domains using a 5-point Likert scale. Attendance and In-Training Exam (ITE) scores were collected. Analyses included descriptive statistics, correlation, and effect size testing. **Results:** Survey response rates ($n = 29$) were 72% (pre) and 86% (post). Agreement that the curriculum adequately prepared fellows for medical oncology and malignant hematology content on the board exam increased from 53% to 79% and 63% to 92%, respectively. Fellow confidence improved in all 20 topic domains, with an average increase of 0.57 on a 5-point Likert scale. Paired analysis of individual ITE scores could be performed in 19 fellows and demonstrated a mean gain of +58 points from 2024 to 2025. Larger improvements were observed among those who attended $\geq 50\%$ of the 2024-2025 board review sessions (Cohen's $d \approx 0.85$). A moderate positive correlation was also identified between pre-ITE session attendance and the magnitude of the score increase for an individual fellow ($r = 0.47$). Notably, the correlation between attendance and change in ITE score held true for both second and third-year fellows. **Conclusions:** The implementation of a longitudinal, structured oncology board review series for H/O fellows at our institution improved trainee satisfaction with their preparation and confidence regarding all testable topic areas. Furthermore, improvements in ITE scores pre- and post-intervention were more robust in fellows with higher session attendance, regardless of fellowship year. This intervention strategy offers a model for other fellowship programs, H/O or otherwise, seeking ways to improve board exam readiness for their fellow-level learners. Research Sponsor: None.

Bridging educational and research gaps among young oncologists in Latin America: Results from a multicenter survey.

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Background: Strengthening oncology research capacity in LATAM is critical to improving regional cancer outcomes. Early-career oncologists play a central role in clinical research, yet structural barriers limit their engagement. Data on educational access, research opportunities, and training needs in LATAM remain limited. This study describes research involvement among early-career oncologists and assesses access to training, mentorship, and career development opportunities, and key barriers to education and research participation. **Methods:** An international, cross-sectional, web-based survey was conducted between Nov/2025 and Jan/2026 among early-career oncologists in LATAM (<40 years or <10 years post-training). Data included demographics and professional development indicators related to research and training. **Results:** A total of 105 surveys were included and were mainly from Colombia 37.1%, Mexico 23.8%, Argentina 8.6%, and other LATAM countries 30.5%; 58.1% were female. Most were ≤ 40 years 84.8%, with 43.8% aged 30–35; 19.0% were in training and 55.2% early career. 19% reported no research involvement; 71.4% dedicated <25% of professional time to research, and only 9.5% $\geq 26\%$. Most participants (80.0%) received no research-related compensation. Although 51.4% reported access to educational opportunities, only 29.5% perceived adequate access to clinical research. Institutional encouragement was reported by 23.8%, and 39.0% had a clear career development plan. Main training barriers were cost (63.8%), clinical workload (61.9%), and limited institutional support (49.5%). The leading unmet educational need was clinical trials and research methodology (83.8%), followed by precision medicine (64.8%) and leadership/oncology management (57.1%). Overall, 68.6% had prior research exposure—mainly as collaborators (43.8%)—while only 21.9% reported principal investigator experience. Key research barriers included limited clinical time (58.1%), lack of funding (48.6%), and restricted research networks (42.9%). Only 37.1% reported an active mentor; institutional mentorship was available to 22.9%, and formal leadership training to 30.5%. Despite high motivation, structural barriers—including limited protected time, funding, mentorship, and institutional support—restrict research engagement among young oncologists in LATAM. Clinical trials and research methodology as unmet needs underscores a gap between educational access and effective research capacity development. **Conclusions:** Young oncologists in LATAM face limited opportunities for active research participation. Structural barriers—including workload, funding, restricted networks, and limited mentorship—hinder progression toward independent research and leadership roles, underscoring the need for programs that expand participation pathways beyond education. Research Sponsor: None.

Collaborative education to advance equitable prostate cancer care in geographically diverse communities.

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Background: Although 15%-19% of the US population resides in rural areas, less than 10% of oncologists practice there, driving significant inequities in prostate cancer care. Community clinicians face barriers including limited subspecialist access, multidisciplinary gaps, biomarker testing delays, and low clinical trial participation. As biomarker testing, imaging, and individualized treatments evolve, targeted education is vital to support evidence-based decision-making and equitable delivery. **Methods:** Talem Health implemented a multicomponent CME/CE-accredited initiative for community oncologists managing prostate cancer across the disease spectrum. The initiative featured a 1-hour virtual session at the 2025 Oncology Congress, a 7-session longitudinal Project ECHO (Extension for Community Health-care Outcomes) telementoring series, and a 1-hour "lessons learned" online activity. Outcomes were assessed via mixed methods: quantitative pre/post-activity assessments and polling, and qualitative data from ECHO case discussions and interviews. Analyses evaluated changes in knowledge, competence, and planned behaviors using Chi-square tests and effect size calculations. **Results:** Over 600 clinicians participated; 91% were hematology/oncology specialists, 93% practiced in community/non-academic settings, and 90% served rural or underserved populations. Identified barriers included limited testing access (36%), treatment access challenges (27%), multidisciplinary gaps (25%), and guideline unfamiliarity (23%). Statistically significant improvements occurred across all knowledge and competence outcomes ($P < .05$ to $P < .01$). Clinicians reported increased intent to incorporate genomic/germline testing; align nmCRPC decisions with guidelines; utilize combination strategies for mHSPC; personalize mCRPC therapy; and implement shared decision-making. Qualitative findings from the ECHO series emphasized the value of peer-to-peer learning. Participants reported higher confidence in managing complex cases and contextualizing new evidence within real-world practice. Ongoing needs were identified regarding risk stratification, rural access barriers, and artificial intelligence applications. Repeated participation in ECHO sessions enabled clinicians to apply new evidence across multiple patient cases over time, reinforcing clinical decision-making through iterative discussion and shared problem-solving. **Conclusions:** This longitudinal educational design effectively supported community oncologists, yielding meaningful gains in knowledge, confidence, and intended practice behaviors. These results demonstrate that tailored education can expand clinician capacity and improve care for patients with prostate cancer in rural and underserved settings. Research Sponsor: This initiative was supported by an independent educational grant from Astellas and Pfizer, Inc.

Investigating interactions between pharmaceutical industry and oncologists in Africa: A secondary analysis of ONCOTRUST-2 study.

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Background: Following the hypothesis-generating ONCOTRUST-1 study, ONCOlogy TRAnsparency Under Scrutiny and Tracking 2 (ONCOTRUST-2) aimed to compare perceptions, understanding, and behaviors related to conflicts of interest (COI) in oncology between high-income countries (HICs) and low- and middle-income countries. This secondary analysis focuses on African countries versus HICs to explore regional differences in interactions with the pharmaceutical industry. **Methods:** We conducted a cross-sectional, survey-based study over two years (January 2024–January 2026). Participants were oncologists practicing in Africa or HICs. Outcomes included perceptions of industry–oncologists’ interactions, recognition of COI scenarios requiring disclosure, and self-reported behaviors. Comparisons used Chi-squared or Fisher’s exact tests as appropriate. **Results:** A total of 331 oncologists were included (Africa n=133; HIC n=188; 52% women). Most respondents were specialists (61.3%), followed by professors (22.1%) and trainees (15.1%). HIC oncologists reported better understanding of evidence-based medicine (EBM) than African oncologists ($p=0.002$). Overall ability to identify all COI scenarios requiring declaration did not differ ($p=0.45$), but HIC oncologists more frequently recognized consulting/advisory roles, direct payments/honoraria, expert testimony, personal funding, and travel/conference support as declarable COI (all $p<0.01$). No group differences were observed for sample drugs, institutional research funding, gifts, or food/beverage paid by industry (all $p>0.05$). Self-reported COI disclosure prevalence was similar between groups ($p=0.67$), and travel/conference support from pharmaceutical industry did not differ ($p=0.14$). African oncologists reported fewer consulting honoraria ($p=0.001$) and lower amounts ($p<0.001$) and less research funding ($p=0.02$), but more receipt of drug samples ($p=0.001$). Compared with HIC peers, African oncologists reported poorer disclosure practices (less reporting in publications when COI existed, $p=0.001$; less disclosure before presentations, $p<0.0001$). Moreover, African oncologists reported more prescription pressure from industry ($p=0.013$) and lower perceived objectivity in trial appraisal when COI exist ($p=0.056$). Interestingly, HIC oncologists more often endorsed adopting new drugs despite weak clinical-trial evidence ($p=0.003$). Knowledge of COI regulations/policies was lower in Africa ($p<0.0001$). Across both groups, support was strong for clearer COI policies, education, and online COI databases. **Conclusions:** African and HIC oncologists showed difference in recognition of specific COI types, disclosure behavior, and policy awareness. Strengthening COI education and implementing clear enforceable policies are therefore needed. Research Sponsor: None.

Hematology-oncology bootcamp: Educational impact of an interactive, guideline-based “101” curriculum.

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Background: Hematology-oncology is a rapidly evolving field, and incoming fellows often face early gaps in foundational knowledge during the transition from internal medicine. Mastery of core principles and guideline-based care is required before complex trial interpretation, yet traditional one-way didactic models may be insufficient. To address this, we implemented a structured, longitudinal bootcamp of ASCO- and ASH-aligned sessions delivered through interactive educational formats for fellows across all training years. **Methods:** Bootcamp curriculum included foundational content in anticancer pharmacology, 4 core-domain “101” sessions, NCCN-based case discussions, clinical trial design, academic career development, workshop on difficult clinical conversations and Kahoot-based heme-path and board review. Content was delivered through 6 different interactive formats over the first 10 weeks of the academic year during a weekly protected half-day. Fellows completed anonymous pre- and post-bootcamp questionnaires assessing self-reported confidence on a 5-point Likert scale. Secondary outcomes included overall knowledge improvement, clinical confidence, satisfaction, and educational format preferences. Pre- and post-intervention scores were compared using Mann-Whitney test. **Results:** Sixteen fellows completed the pre-bootcamp survey and 13 completed the post-bootcamp survey. There was statistically significant improvements across all 4 core-domains: General Oncology and foundations (2.9 to 3.8; $p < 0.01$), Classical Hematology (3.0 to 3.7; $p < 0.05$), Hematologic Malignancies (2.8 to 3.7; $p < 0.05$), and Solid Tumors (2.5 to 3.4; $p < 0.05$). Case-based discussions and chalk-talks were the most effective formats, used in both 101 sessions and communication workshop (Table). Moderate or major improvements in overall knowledge as well as inpatient/outpatient clinical confidence were reported by 92.3% fellows. Quality meal options encouraged in-person attendance for 84.6% fellows. Overall satisfaction with the bootcamp was high, with 84.6% fellows reporting agreement or strong agreement. **Conclusions:** Early delivery of foundational concepts through interactive, case-based “101” curricula improves fellows’ knowledge and clinical confidence. While traditional lectures remain important for trial interpretation, incorporating interactive formats enhance confidence and satisfaction for fellows. This structured, guideline-based bootcamp represents a scalable model for fellowship training. Research Sponsor: None.

Educational format effectiveness.

Educational Format	Mean Effectiveness Score (1-5) \pm SD
Chalk-talks	4.2 \pm 0.7
Case-based scenarios	4.2 \pm 0.6
Kahoot-based interactive rounds	3.9 \pm 0.6
PowerPoint	3.6 \pm 0.7
Group-discussions	3.3 \pm 1.1
Online Modules	2.5 \pm 0.8

Empowering educators: An international virtual mentorship program for hematology/oncology medical educators.

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Background: Mentorship is a cornerstone of physician career development, linked to improved well-being, job satisfaction, research productivity, and faculty retention. Clinician educators often cite lack of mentorship as a major barrier to career advancement. We developed and piloted a year-long virtual mentorship program (VMP) with the American Society of Clinical Oncology (ASCO) for hematology/oncology (H/O) career development in medical education. **Methods:** We piloted the program during the 2024-2025 ASCO VMP cycle. Mentors and mentees applied via survey and were matched by committee members based on interests and goals. Each pair was required to complete a mentorship plan, including goals in three domains: professional development/course work, administrative/leadership experience, and scholarly output. We conducted an anonymous retrospective survey of participants via Qualtrics upon cycle completion. Surveys assessed: meeting cadence, satisfaction, goal attainment, and perceptions of career trajectory. Confidence in mentoring and knowledge growth related to pursuing a medical education career were assessed using a 5-point Likert scale with retrospective pre-post ratings. Paired scores were analyzed using the Wilcoxon signed-rank test after excluding ties. **Results:** Thirty-eight mentors and 42 mentees participated in the pilot. Survey response rate was 40% (mentors: 36.8%, mentees: 42.9%). Most met monthly (mentors: 35.7%, mentees: 44.4%) or every 2-3 months (mentors: 42.9%, mentees: 38.9%). Satisfaction was high (mentors: 71.4% "very satisfied," 21.4% "satisfied"; mentees: 66.7% "very satisfied," 27.8% "satisfied"), and nearly all would recommend the program (mentors: 100%, mentees 94.4%). The mentorship plan was discussed by all, with the majority reporting goal achievement (mentors: 92.9%, mentees: 88.9%). Most plan for ongoing mentoring after cycle completion (mentors: 78.6%, mentees: 72.2%). All respondents reported improved perceptions of career trajectory, with all mentors and 92.9% of mentees expressing greater interest in medical education careers and all noting a higher perceived likelihood of success. Mentors' confidence in mentoring increased by a mean of 0.29 on a 5-point scale, but the Wilcoxon test was non-significant ($p = 0.22$). Mentees' knowledge of medical education careers increased significantly with a mean gain of 0.57 ($p = 0.016$). **Conclusions:** Our pilot medical education VMP was highly valued, with strong satisfaction, widespread goal attainment, improved perceptions of career trajectory, and plans for sustained relationships beyond the defined mentorship period. These findings support virtual mentorship as a feasible strategy for clinician educator career development within H/O. Collaboration with and organizational support from professional societies will be essential for scalable, sustainable program development. Research Sponsor: None.

Determinants of leadership attainment among ASCO Leadership Development Program, 2009–2025.

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Background: Determinants of leadership attainment among participants in formal leadership development programs remain poorly characterized. We examined the factors associated with leadership attainment among graduates of the ASCO Leadership Development Program (LDP). **Methods:** We conducted a retrospective cohort study of ASCO LDP participants from 2009–2025. Leadership attainment following participation in the ASCO LDP was the primary outcome, defined as cancer Center Director, Division Chair, Subspecialty Chief, or Program Director, as identified through publicly available data. Participant characteristics included gender, medical training (American medical graduate [AMG], international medical graduate [IMG]), education (MD, MD/PhD, MD/Master's), National Cancer Institute (NCI) designation, geographic region (West, Northeast, South, North Central, non-US), and scholarly productivity (h-index). Descriptive analyses were performed overall and by leadership status. Multivariable logistic regression was used to estimate adjusted associations, including gender–NCI designation interaction. Adjusted odds ratios (AORs) with 95% confidence intervals (CIs) were reported. **Results:** Among 216 eligible participants, 165 (76.4%) attained leadership roles. Participants were predominantly female (n=116, 53.7%), AMGs (n=157, 72.7%), MDs (n=129, 59.7%) and affiliated with NCI-designated centers (n=145, 67.1%). Median h-index was 39 (IQR 25–57), and participants were mostly based in the Northeast (n=77, 35.6%) and West (n=53, 24.5%) regions. Compared with non-leaders, leaders demonstrated higher scholarly productivity, with a higher median h-index (42 [IQR 25–59] vs 29 [IQR 20–44], $p=0.042$). Using NCI-designated females as the reference group, NCI-designated males demonstrated higher odds of leadership attainment in adjusted models (AOR 2.34, 95% CI 0.96–6.06, $p=0.067$). Compared with participants from the West, those based in the South demonstrated lower odds of leadership attainment (AOR 0.35, 95% CI 0.12–0.98, $p=0.050$), independent of gender, education, NCI designation, and year. Leadership attainment remained stable over time, with no consistent temporal trends across subgroups. **Conclusions:** Leadership attainment in ASCO LDP was stable over time and associated with scholarly productivity and geographic region rather than gender or institutional setting. Research Sponsor: None.

Adjusted odds of leadership attainment by gender–NCI designation interaction and geographic region.

Variable	Category	Adjusted OR (95% CI)	p value
Gender × NCI	NCI Female	Reference	–
	NCI Male	2.34 (0.96–6.06)	0.069
	Non-NCI Female	2.04 (0.71–6.43)	0.201
	Non-NCI Male	1.17 (0.43–3.32)	0.760
Region	West	Reference	–
	Northeast	0.64 (0.23–1.65)	0.366
	South	0.35 (0.12–0.98)	0.050
	North Central	0.45 (0.14–1.49)	0.183
	Non-US	0.32 (0.07–1.44)	0.141

Gender × NCI modeled as a combined interaction term (ref: NCI female).

Leader-member exchange (LMX) and workforce outcomes in radiation oncology: A preliminary generational comparison.

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Background: Job satisfaction and turnover intention remain crucial outcomes for healthcare organizations incurring substantial costs associated with recruiting and training new employees. Continual workplace stressors continue to challenge retention efforts across clerical and clinical settings. Leader-member exchange (LMX) theory provides a relationship-based framework for understanding these outcomes, emphasizing the quality of the manager-employee relationship. As healthcare workforce increasingly spans generational cohorts, differences in career expectations and workplace values may influence how leadership relationships are perceived. This study examines the association between LMX quality, job satisfaction, and turnover intention, with specific attention to generational differences between older (Baby Boomers and Generation X) and younger (Millennials and Generation Z) employees within a Radiation Oncology department. **Methods:** This quantitative study surveyed healthcare professionals (> 18 years) in a Radiation Oncology department at an academic medical center using purposive sampling. An anonymous, web-based survey was distributed via email and included standardized measures of leader-member exchange (LMX-7), job satisfaction, and turnover intention (TIS-6), along with demographic items. After electronic informed consent was obtained, the average for survey completion was 7.5 minutes. Data was collected over three months, de-identified, and analyzed using RStudio. **Results:** The survey achieved a 74% response rate, indicating broad representation of the department. Mean LMX scores were comparable between older ($M = 4.04$, $SD = 1.06$) and younger ($M = 3.91$, $SD = 1.13$) employees. Job satisfaction was modestly higher among younger respondents ($M = 4.18$, $SD = 0.73$) compared with older respondents ($M = 4.00$, $SD = 0.82$), whereas turnover intention was slightly higher in the older group ($M = 1.56$, $SD = 0.87$ versus $M = 1.45$, $SD = 0.83$). LMX was positively correlated with job satisfaction in both older ($r = .58$, $p = .002$) and younger ($r = .59$, $p < .001$) professionals. LMX demonstrated an inverse association with turnover intention in both groups, reaching statistical significance among older employees ($r = -.57$, $p = .003$) but not among younger employees ($r = -.32$, $p = .069$). **Conclusions:** Higher-quality LMX was associated with greater job satisfaction and lower turnover intention among both older and younger healthcare professionals. This emphasizes the importance of leadership relationships in workforce development and stability. These findings support the value of authentic leadership practices grounded in mutual respect and trust. Additionally, these findings highlight the need for future analyses to examine individual generational groups (e.g., Generation X versus Millennials) to better understand variations. Research Sponsor: None.

RECON: A trainee-led, needs-informed professional development and global connectivity model for young oncologists in low- and middle-income countries.

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Background: Oncology trainees and early-career oncologists (ECOs) in low- and middle-income countries (LMIC) face persistent gaps in structured mentorship, research exposure, and non-clinical professional skills, limiting academic development and global engagement. In response, the Residents & Early Career Oncologists Network (RECON) was established in 2024 under the Society of Medical Oncology Pakistan as a national, trainee-led, needs-informed initiative delivering scalable, low-cost, collaborative educational interventions aligned with learner priorities. **Methods:** RECON implemented a needs-informed, multi-component professional development framework for oncology trainees and ECOs (≤ 5 years post-training) across Pakistan. Core components included: (1) structured mentorship; (2) digital education via the Second Opinion Podcast addressing non-clinical competencies; (3) conference-linked outreach workshops on abstract preparation and peer networking; and (4) monthly international virtual oncology case rounds with young oncologists from Türkiye. Engagement was prospectively tracked, and post-session surveys assessed acceptability and self-reported learning outcomes using 5-point Likert scales (1–5). **Results:** RECON enrolled 104 members (79 trainees, 25 ECOs) and engaged 32 national and international faculty mentors. Baseline survey data ($n = 104$) demonstrated substantial unmet needs across multiple professional domains, with high interest in professional development (83%), research collaboration (80%), mentorship opportunities (61%), and general networking (60%). Digital education initiatives achieved over 10,000 cumulative podcast views, and three national outreach workshops engaged 155 participants. Post-session surveys from the case rounds series ($n = 37$) demonstrated high acceptability, with 92% rating sessions as very good or excellent. Participants reported greater confidence in international oncology case discussions (84% rating 4–5) and improved ability to critically appraise alternative management approaches (81% rating 4–5). International perspectives were rated as highly relevant to clinical practice. **Conclusions:** This early evaluation demonstrates the feasibility and acceptability of a national, trainee-led, needs-informed initiative in an LMIC setting. RECON's low-cost, digitally enabled model was associated with high engagement and perceived educational value, particularly in fostering global connectivity and professional confidence among oncology trainees and ECOs. Future evaluation will explore longitudinal outcomes and support iterative refinement, with consideration of adaptation across similar resource-limited contexts. Research Sponsor: None.

The role of coaching in enhancing clinical oncology academic performance.

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Background: Oncology faculty in academic medicine navigate a multitude of demands spanning clinical care, research, teaching, and administrative pressures. These forces are the impetus for the implementation of targeted interventions to enhance leadership capabilities. Coaching is a robust intervention and has been recognized as well-suited to meet faculty needs. Despite this recognition and increasing adoption, the impact of coaching on key outcomes in both research and clinical spaces remains underexplored. We leveraged Intentional Change Theory (ICT) to guide our evaluation of an internal coaching program within a large academic hospital in the South-Central United States. ICT articulates how alignment of one's ideal self with their professional goals yields sustained personal transformation and is a useful guide for professional coaching. **Methods:** Through this conceptual framework, we employed a quasi-experimental approach to evaluate the impact of coaching on the research outcomes: clinical trials activated and h-index increase, as well as its components (new publications and new citations). Further, we investigated the impact of coaching on the clinical outcomes of Work Adjusted Relative Value Units (RVUs) and patient experience scores (Press Ganey Care Provider Scores). We conducted this study among a sample of clinical oncology faculty who participated in coaching (N = 189) and N = 200 matched peers who were eligible for but had not yet participated in coaching between 2018 and 2022. **Results:** Analyses revealed coaching positively impacted certain research productivity metrics; notably, faculty who participated in coaching were found to have greater increases in h-index ($F(1, 379) = 7.27, p = .007, \eta^2 = .02$, Coached M = 2.52, SD = 4.16; Comparison M = 1.69, SD = 1.77), new publications ($F(1, 318) = 6.26, p = .013, \eta^2 = .02$; Coached M = 10.81, SD = 11.54; Comparison M = 8.06, SD = 10.18), and new citations ($F(1, 379) = 7.43, p = .007, \eta^2 = .02$; Coached M = 891.79, SD = 1,598.05; Comparison M = 509.47, SD = 1,054.25) in comparison to faculty who had not engaged with a coach. However, no significant differences were detected between groups in regard to clinical outcomes as measured by Work Adjusted Relative Value Units (RVUs) ($F(1, 304) = 2.06, p = .15, \eta^2 = .007$; Coached M = 6,316.48, SD = 3,558.46; Comparison M = 6,352.38, SD = 3,975.66), and patient experience scores ($F(1,150) = 0.91, p = .34, \eta^2 = .006$; Coached M = 95.35, SD = 6.41; Comparison M = 96.22, SD = 3.32), or the research outcome of clinical trial activations ($F(1,382) = 0.05, p = .83, \eta^2 = .00$; Coached M = .73, SD = 1.62; Comparison M = .49, SD = 1.42). **Conclusions:** Findings suggest coaching can be an effective intervention to enhance certain research outcomes reliant on self-regulation and individual motivation. Yet, initial evidence suggests coaching may be less well-positioned to influence outcomes prone to institutional constraints and governance. Research Sponsor: None.

Role expansion of advanced practice providers over 5 years at Hawai'i's NCI Community Oncology Research Program.

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Background: Advanced Practice Providers (APPs), including Nurse Practitioners and Physician Associates, are key members of the oncology team but historically have not been utilized to their full potential in cancer clinical trials. In alignment with NCI policy and guideline changes in 2020 & 2021, the University of Hawai'i Cancer Center & Hawaii NCI Community Oncology Research Program (NCORP) began formally engaging their APPs to maximize clinical trial efforts. The objectives of the current project were to measure the impact of the APP role expansion and identify factors contributing to enhancement of APP role in cancer clinical trials. **Methods:** Data were gathered from the clinical trial management system analyzing APP contributions annually from 2021-2025, including the number of unique APP accruals (enrolling or referring), APPs serving as enrolling/referring investigators, APPs serving as site principal investigator, APPs reviewing trials for feasibility and scientific merit, and trials led by APPs. Informal interviews were conducted to identify the means of APP engagement. **Results:** From 2021 through 2025 the annual number of patients enrolled or referred to trials by APPs increased from 28 to 103, APPs who accrued patients to trials increased from 4 to 13, APPs serving as site PIs increased from 1 to 6, APPs reviewing trials for feasibility and scientific merit increased from 4 to 6, and trials being led by APPs increased from 13 to 30. In 2025, among trials that allowed APP accrual (symptom management and cancer care delivery), APPs accounted for 51% of this site's total accrual. Factors contributing to APP role in cancer clinical trials were identified as APP leadership and engagement, formal and informal mentorship, and APP educational opportunities. **Conclusions:** APPs can significantly contribute to cancer clinical trials in terms of accrual and leadership as evidenced by these results. This project illuminates potential avenues for expanding APP roles in clinical research. This group will engage APPs on neighbor islands and Guam with an ultimate goal of increasing clinical trial access for underserved populations who reside on these islands. Research Sponsor: NIH-NCORP; UG1CA189804/5UG1CA189804-08.

Placing oncology and conflicts of interest in a global context: Evidence from the large international ONCOTRUST-2 study.

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Background: Conflicts of interest (COIs) arising from relationships between pharmaceutical industry and oncologists can influence clinical practice and research. Still, global patterns of COIs and disclosure practices remain unexplored. In this interim analysis of ONCOTRUST-2 study, we compared self-reported COI-related practices and financial relationships among oncologists practicing in high-income countries (HICs) versus low-/middle-income countries (LMICs). **Methods:** ONCOTRUST-2 is a multinational cross-sectional survey (January 2024–January 2026) targeting oncologists with at >1 year of experience from LMICs and HICs. Data were collected using snowball sampling through established professional networks and scientific societies. Multivariable logistic regression models were fitted, adjusting for years of professional experience, specialty, current position/seniority, frequency of pharmaceutical industry visits, and the presence of local COI regulations/policies. We report adjusted odds ratios (aORs) with 95% confidence intervals, using a significance threshold of $p < 0.05$. Findings are reported in accordance with the CROSS guidelines. **Results:** A total of 678 oncologists responded to the survey (LMICs: 63.9; HICs: 36.1%) mainly in medical oncology (48.7%), clinical oncology (15.9%) and radiation oncology specialties (15.5%). After adjustment for experience, specialty, position, pharma-visit frequency, and local COI policy presence, HIC oncologists reported higher prevalence of higher-profile industry relationships, including consulting/advisory roles (aOR 2.13, CI: 1.45–3.13; $p < 0.001$) and honoraria/consulting payments (aOR 2.77, CI: 1.29–5.98; $p = 0.009$). Trips/accommodation support was also more common in HICs (aOR 1.52, CI: 1.07–2.17; $p = 0.021$). A marked gradient was observed for payment magnitude. HICs oncologists were less likely to report no money received (aOR 0.37, CI 0.25–0.54; $p < 0.001$) and more likely to report receiving \$2,000–\$5,000 (aOR 6.96, 95% CI 3.08–15.75; $p < 0.001$) or > \$5,000 (aOR 17.23, 95% CI 4.92–60.32; $p < 0.001$). HICs oncologists reported better COIs disclosure in key academic settings. COIs disclosure before presentations was more common in HICs (aOR 2.72, 95% CI 1.81–4.09; $p < 0.001$), and disclosure in publications was also higher (aOR 1.92, CI: 1.32–2.79; $p < 0.001$) than in LMICs. Reporting non-disclosure was also less frequent in HICs (aOR 0.44, 95% CI 0.25–0.77; $p = 0.004$). **Conclusions:** Oncologists in HICs reported both greater engagement with and better COI disclosure compared with LMICs. These findings suggest that global COI policies and disclosure infrastructures may differ by national economic context and should be strengthened, with attention to equitable, context-appropriate implementation, regulation governance of COI in LMIC settings. Research Sponsor: None.

Separating facts from feeds: An evaluation of social media videos on Barrett's esophagus.

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Background: Esophageal cancer is subdivided into two types based on histopathology, squamous cell carcinoma and adenocarcinoma (ACE). While the former has declined in incidence within the US, the latter has seen a marked increase. The natural history of ACE begins with metaplastic and dysplastic changes, coined Barrett's esophagus (BE). This pre-malignant condition is treatable if dysplastic changes are detected early. Surveillance endoscopies are recommended every 3-5 years in individuals with BE, yet the adherence to this recommendation remains low. As the incidence of cancer increases in young individuals, clinicians must adapt their methods for disseminating information. In this study, we graded social media videos about BE and compared scores between medical professionals and non-medical professionals. **Methods:** Utilizing a freshly made account to limit algorithmic tailoring, 106 videos were gathered from TikTok (n=60, 56%) and Instagram (n=46, 44%) using the hashtag "#barrettesophagus." Inclusion criteria included videos covering the pathophysiology, clinical features, diagnosis, treatment, or surveillance of BE. Exclusion criteria were videos that did not cover those topics or were not in English. Videos were graded utilizing the CHAI rubric, a verified, 10-point grading rubric for online videos, where 10 is an ideal score. The graded categories are credibility, transparency, content accuracy, accessibility, and relevance. Medical professionals (MP) were defined as MD/DOs, PhDs, RNs, PA/NPs, or RDs. Engagement was defined as cumulative total of likes and comments. Each video was graded by two independent reviewers. Statistical analysis was performed utilizing unpaired, Welch's t-test. **Results:** Out of the 106 videos, 15 were excluded. From those remaining, 52 videos (49%) were made by MP, and 54 videos (51%) were made by non-MP. This latter group was composed of lay individuals (n=12, 11%), non-medical influencers (n=12, 11%), professional organizations (n=3, 2%), and private groups (n=12, 11%). The average CHAI for videos from MP were 9.7, compared to 7.0 from non-MP ($p < 0.01$). Screening guidelines were covered in 21 videos (20%), with MP covering 15 of them (71%), while only 6 were covered by non-MP (29%). Average engagement on MP videos was 2674, contrasted to 183 in the non-MP group. No videos explicitly stated that AI was involved in making the content. **Conclusions:** Medical professionals produced significantly higher-grade content covering BE than non-medical professionals. Additionally, medical professionals were more likely to report on the updated screening guidelines for BE and on average had higher engagement per video. This highlights the benefit of medical professionals within social media and shows the potential of disseminating updated screening guidelines through modern avenues of information sharing. Research Sponsor: None.

Digital information-seeking behavior in patients with cancer through storytelling.

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Background: Peer support for cancer patients through narrative interventions can have benefits for quality of life, emotional health, and self-efficacy. This support has classically been provided through static text content on websites, but less is known on whether video-based platforms can preferentially drive patient engagement and self-activation. The Patient Story is a multi-channel platform specializing in video-focused patient-led programs and stories designed to reduce emotional burden and drive patient self-advocacy that leads to informed treatment decision-making. We sought to describe engagement between webpage delivery and a video-based version to understand how different digital platforms could drive varying levels of patient reach and activation, including measurable behavioral changes like motivation to ask doctors questions about treatment and care. **Methods:** Site traffic data relative to benchmarks and participant characteristics visiting The Patient Story were prospectively collected (1/1/22–12/31/25) using Google Analytics 4 for the website and YouTube Studio for the videos. A retrospective review was done on a convenience sample of 4,065 digital platform viewers who then participated in high-touch educational webinars led by patient moderators and multidisciplinary health care providers. Impact was assessed via post-program surveys (n=1,452; 36% response rate) measuring shifts in treatment awareness and behavioral intent. **Results:** A higher percentage of patients who viewed the video platform were female (72.9%) compared to the website (64.4%). Video platform participants tended to be older, with 24% 65+ years old compared to 13% of web participants. Mobile devices were most commonly used for websites (71.2%) and video (54.8%) while 24.8% of those who engaged on video platforms used SmartTV. Reach was substantially higher with the video platform, which generated 72.4M views (average duration on video 6:04) compared to 1.8M website views (89.7% engagement rate). Significant shifts were observed: treatment awareness increased from 3.6 to 4.2 (on a 5-pt scale), and 51.5% of respondents reported a specific intent to discuss the webinar topics (treatment and clinical trial education) with their physician. **Conclusions:** Video first-person storytelling is a novel way of helping patients receive peer support and information. Cancer patients increasingly seek information through mobile and video platforms rather than traditional web searches on desktop computers. Health systems should consider multiple methods of digital communication to increase patient engagement. Research Sponsor: None.

Metric	Value (N=1,452)
Topic Pre-Awareness (5pt scale)	3.6
Topic Post-Awareness (5pt scale)	4.2
% Change in Awareness	+16.7%
Intent to Discuss with Doctor	51.5%
Intent to Research Clinical Trials	20.1%

AI-powered social media listening of oncologist conversations at ASCO 2025.

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Background: Major oncology congresses generate extensive expert-driven discussion on social media around clinical trial data. However, standardized methods to systematically capture, contextualize, and evaluate these conversations remain limited. LARVOL CLIN is an AI-powered platform that analyzes oncology-focused discussions on X (formerly Twitter), enabling systematic evaluation of clinical trial discourse through assessment of trial-level activity, oncologist sentiment, and engagement. **Methods:** This observational, descriptive analysis evaluated oncology-related posts on X associated with ASCO 2025 (from Apr 23, 2024, to Jan 14, 2025). Posts were identified using predefined conference- and trial-specific keywords and underwent manual validation to confirm relevance to oncology clinical trials. Text-based sentiment analysis was conducted exclusively on posts from oncologists, while trial-related images and polls from both oncologist and non-oncologist X accounts were reviewed for relevance. Validated content was analyzed using oncology-trained large language models, based on ChatGPT 5.1, to interpret clinical context, including efficacy, safety, endpoint status, and potential practice relevance. Sentiment was categorized as negative, neutral, positive, or strongly positive. **Results:** A total of 4,621 oncology clinical trial-related X posts from 651 digitally active oncologists were analyzed for ASCO 2025. Sentiment profiles varied across trials (Table 1). Some studies demonstrated a higher proportion of positive or strongly positive sentiment while others were characterized primarily by neutral assessments reflecting cautious clinical interpretation. Neutral sentiment constituted a substantial share of oncologist posts, often reflecting data interpretation, contextual discussion, or pending clinical relevance. Negative sentiment was typically associated with limited efficacy signals, safety considerations, or unmet expectations. **Conclusions:** This ASCO 2025 observational study demonstrates that AI-driven social listening can systematically capture, contextualize, and quantify expert oncology discourse surrounding clinical trial presentations. LARVOL CLIN enables real-time assessment of oncologist sentiment supporting medical affairs, outcomes research, and strategic communication. Research Sponsor: None.

Digital oncologist activity for selected ASCO 2025 trials.

Trial (Abstract ID)	Views (K)	Not Rated	Negative	Neutral	Positive	Strongly Positive	Total X Posts
PACIFIC15 (8516)	798	47	10	14	25	14	110
DESTINY-Breast09 (LBA1008)	477	32	4	14	24	34	108
SERENA-6 (LBA4)	358	36	9	15	39	26	125
ASCENT-04 (LBA109)	355	22	2	5	25	34	88
ATOMIC (LBA1)	290	25	4	8	27	40	104

LARVOL CLIN represents cumulative views across all X posts for each trial. Sentiment categories reflect AI-generated classification of oncologist X posts.

Baseline bone marrow biopsy (BMBx) performance relative to a mastery-level standard: A SIM-BMBx interval analysis.

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Background: BMBx is the gold standard diagnostic test for many pathologies. Bedside BMBx is frequently performed by advanced practice providers (APPs) and is required of Hematology-Oncology (HO) fellows by the ACGME. Apprenticeship-style instruction is inconsistent and promotes variable practice. Simulation-based mastery learning (SBML) standardizes instruction to a mastery performance standard (MPS) and is known to improve skill acquisition, retention, and performance. We developed an SBML curriculum for BMBx and herein provide a report of baseline performance. **Methods:** We developed a 28-item BMBx checklist based on experience, literature review, and institutional feedback. Eight experts completed a Modified Angoff Method that set the checklist MPS at 27. Maintaining sterile technique was mandatory. HO fellows, HO APPs, and Internal Medicine (IM) residents were invited to participate. Participants completed a survey of their experience and confidence in performing BMBx. Those with < 3 BMBx were considered “novice,” and those with > 3 were “experienced.” Participants completed a baseline simulated BMBx (B1) using the VATA Bonnie Bone Marrow Biopsy Skills Trainer. Performance was assessed by investigators via the checklist. The first 15 simulations were co-evaluated for consistency. The protocol was exempted by Northwestern University’s IRB. The primary endpoint is the change between B1 and post-SBML score. We performed a descriptive analysis of B1 conducted at 50% enrollment. **Results:** Twenty-five participants completed B1, including 10 APPs, 9 fellows, and 6 residents. Nine were novices (3 APPs, 6 residents). The 16 experienced participants (7 APPs, 9 fellows) had all performed 10 or more BMBx. The median B1 score was 17 (range 6 – 27). One participant, an APP, met the MPS at B1 with a score of 27. The median among APPs, fellows, and residents was 17 (8 – 27), 18 (15 – 23), and 8.5 (6 – 14), respectively. The median among novices was 10 (6 – 19) and among experienced was 18 (12 – 27). Baseline confidence scores were numerically higher for experienced participants (Table 1). **Conclusions:** For the vast majority of practitioners, regardless of professional training and experience with the procedure, BMBx performance does not meet an expert-derived MPS. Experienced practitioners have high confidence despite this. More consistent education of BMBx technique and best practices is needed and may be achieved with SBML. Research Sponsor: Northwestern University Lewis Landsberg Society.

Participant B1 confidence scores.

	N	ID Biopsy Site	Anesthetize Site	Obtain Specimen	Self-Assess Performance	Troubleshoot to Obtain Specimen	Post-Procedure Instruction
Novice	9	30 (10-70)	30 (10-60)	0 (0-50)	0 (0-50)	0 (0-50)	10 (0-80)
Experienced	16	80 (0-100)	90 (0-100)	80 (0-90)	80 (0-100)	70 (0-100)	90 (10-100)
Overall	25	70 (0-100)	80 (0-100)	70 (0-90)	60 (0-100)	60 (0-100)	80 (0-100)

Median (range) confidence in performing an activity from 0 (very low) to 10 (very high).

Improving internal medicine residents' confidence in oncology goals-of-care conversations.

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Background: Internal medicine (IM) residents frequently participate in goals-of-care (GOC) discussions for patients with cancer, yet formal training in oncology-specific serious illness communication remains limited across residency programs. As a result, residents often rely on oncology or palliative care teams to lead these conversations, which may delay timely GOC discussions and subsequent care decisions. Prior educational interventions in serious illness communication have demonstrated improvements in resident confidence; however, oncology-specific GOC training tailored to IM residents is underrepresented. We aim to address this educational gap through the development of a brief, case-based curriculum focused on oncology-related GOC conversations. The objective is to evaluate whether a brief, case-based educational intervention improves IM residents' confidence and knowledge in conducting oncology-related goals-of-care discussions. **Methods:** This is a pilot educational intervention involving IM residents (postgraduate years 1–3) at a large academic residency program. The intervention consists of a 60-minute, case-based session delivered during a scheduled conference. Content focuses on key oncology GOC topics, including prognostic uncertainty, transitions to comfort-focused care, transitions to palliative-intent treatment, and use of structured communication frameworks. Participants will complete pre- and post-intervention surveys assessing self-reported confidence in conducting GOC discussions, comfort discussing prognosis and treatment transitions, and knowledge using two brief case-based vignettes. Pre- and post-intervention survey responses will be compared using paired t-tests. Qualitative feedback will be collected and analyzed thematically. Research Sponsor: None.