Program Details

1. Activity Title: The Evolution of Therapies for NSCLC: Navigating New Therapies & Counseling Patients in Clinical Decisions. Supported by an Educational Grant from Genentech
2. Partner(s): The Academy for Continued Healthcare Learning, ArcheMedX, and Pro-ficiency
3. Activity Dates: Launched June 30, 2016 and was valid for CME credit through June 30, 2017
4. Proof of accreditation, unbiased, and/or evidence-based medical education:
   Module 1:

ACCREDITED PROVIDER DISCLOSURE

ACHL staff members and others involved with the planning, development, and review of the content for this activity have no relevant affiliations or financial relationships to disclose.

CREDIT	TYPE	ACCREDITATION STATEMENT	DESIGNATION STATEMENT
0.75	*AMA PRA Category 1 Credit(s)* ™	The Academy for Continued Healthcare Learning is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.	The Academy for Continued Healthcare Learning designates this enduring material for a maximum of 0.75 *AMA PRA Category 1 Credit* ™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

   Module 2:

ACCREDITED PROVIDER DISCLOSURE

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5. Activity Summary: The educational initiative featured a collaboration between ACHL, ArcheMedX, and Pro-ficiency, which was designed to disseminate both professional and patient education in a comprehensive, measurable, and engaging way. The professional education component of this initiative was created in ACHL's Digital Classroom format which was delivered via the ArcheMedX ArcheViewer in two 30-minute CME activities. The patient education was delivered via Pro-ficiency's ProPatient platform and designed to help bridge the communication gap between clinicians and patients, while providing an educational resource developed specifically for the patient and/or caregiver. The video-based activities included two faculty filmed in a studio. Each activity presented new and emerging data, but also included expert commentaries as well as engaging dialogue between faculty, offering different perspectives as well as insightful pearls and potential impact on clinical practice and the clinical implication in diverse patient populations. To further clinician engagement mechanism of action (MOA) animation was included at key points of the discussions to provide visual representations to clinician. The unique blend of discussions, cases, MOA provided the foundation for an impactful activity. In addition, leveraging the ArcheMedX ArcheViewer enabled the providers to take the activity to the next level.

Each clinician was able experience the learning stream and the related resources differently – for some it will felt like the moments and resources are simply supportive, for others, the resources were more critical. Moreover, some learners were able to dive more deeply into a related resource, others will not, which increasingly differentiates the data too. With interactive polling questions, note taking capabilities, and nudges that appeared throughout the video to retain the attention of clinicians, this activity allowed us to meet our goal of creating lessons that allowed providers the opportunity to absorb relevant clinical data without needing to devote significant time to learning; at their convenience; and in the most efficient way possible. Additionally, we were able to seamlessly connect the original content developed for this activity to the emerging body of relevant resources and articles as they became available. *By utilizing the ArcheViewer, we were able to ensure content was refreshed and adapted throughout the duration of this initiative and that lessons drove learning, increased competency, and improved clinician performance.*

The ProPatient platform presented teaching in a manner more reflective of the patient voice, and allowed patients to interact with a virtual, video response team of HCPs, advocates and other patients. The ProPatient learning experience took place in a simulated environment where learners had the opportunity to choose the topics that were most relevant to their interests. Using content developed with input from faculty, advocates and patients, ProPatient allowed for both improvements in clinical understanding and access to stories from other patients who face similar challenges. Clinician participants of the Digital Classroom CME activity were encouraged to provide their patients with access to the ProPatient activity, "prescriptive learning." We leveraged some of the key features of the ArcheViewer, i.e. the "nudges", to encourage the clinician learner to share the patient education activity, explain why it is important to both the clinician and the patient, and how to integrate a more patient centered approach to care. By effectively connecting the two facets of this educational design the program addressed clinician knowledge gaps and communication skills as well as patients' knowledge and communication approaches in order to begin to develop a highly informed and more participatory approach to health considerations related to managing NSCLC.

The features of the ArcheViewer and ProPatient platform incorporate the findings from CE literature and the principles of adult learning. The National Learning Competencies addressed in initiative include areas 1, 2, 3, and 4. A Certified Healthcare CPD Profession (CHCP) was involved from conceptualization through development, implementation, execution, and final analysis to ensure the program was designed to meet the needs of the target audience. Her involvement also allowed for internal staff development, as well as opportunities to learns and discuss rationales and recommendations with collaborators during program development.

The initiative was disseminated to medical oncologists, oncology nurses, and other healthcare providers with an interest in lung cancer. In addition to clinicians, patients with lung cancer and their caregivers were the target audience for the patient resource. Total clinician participation was 2774 with 304 certificates awarded. The patient education saw 953 patients participate, with the average patient viewing more than 13 "scenes" (aka topic areas).

Outcomes Measurement

Activity Outcomes
This activity was designed to impart knowledge and competence and self-reported performance changes in our target audience. The patient component was designed to provide appropriate patient level information on NSCLC, testing, treatment options, shared decision making, etc. Success was seen across both clinician modules and the patient education program due to the innovative design of both programs and the interactive, user friendly platforms that housed the activities. Pre-, post-, intra- activity polling and follow-up surveys were sent to participants.

Desired Change- Employ shared decision-making to support the discussion of therapies and options with patients

- 90% of clinicians engaged by the program reported that they had increased the frequency in which they engage their patients with NSCLC in shared decision-making since participating

Desired Change- Discuss the role of new and emerging immunotherapies in current treatment paradigms for NSCLC

- Participant knowledge of the differences between nivolumab and pembrolizumab improved after participation in this activity (34% to 87%).
- The percentage of participants correctly identifying the mechanism of action of atezolizumab increased post-activity (39% to 92% 78% (Follow-up)).
- Learner confidence in selecting immunotherapy for patients with NSCLC increased by 119% pre- to post- activity in follow-up survey confidence was retained with a 110% increase from pre-activity.

Desired Change- Factor patient and clinical factors into selection of first-line, second-line, and maintenance regimens for diverse patients with NSCLC

- Participants demonstrated increased knowledge of patient factors that may indicate potential response to immunotherapy (22% to 87%, 33% (Follow-Up)
- The percentage of participants correctly identifying chemotherapy as the appropriate therapy currently available for a patient with a KRAS mutation increased after participation in this activity (47% to 77%)
- Learner confidence in selecting targeted therapies for patients with NSCLC increased by 142%.

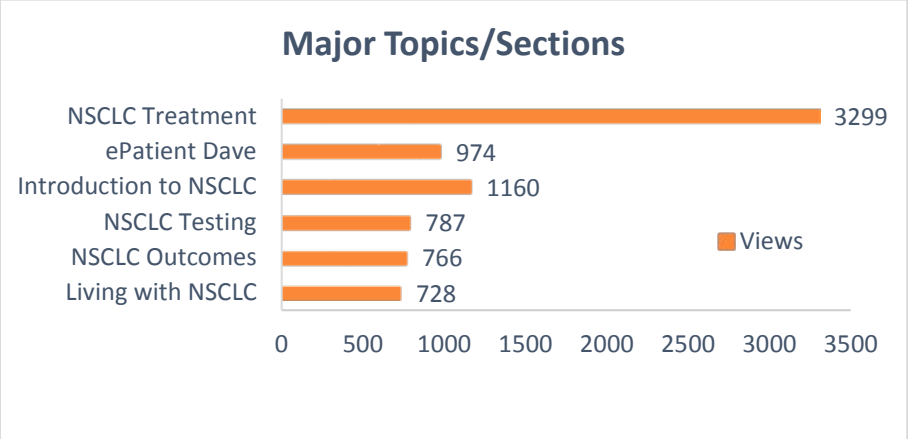
Desired Change- Integrate data from molecular profiling tests into individualized treatment regimens for patients with NSCLC

- Participants demonstrated increased awareness of osimertinib as the available therapy for patients with EGFR T790M mutation-positive NSCLC (32% to 82%).
- More than one-half of participant reported that they would test for genetic alterations in all adenocarcinoma patients. Follow up responses retained this trend (>60%).
- 90% of learners rated the effectiveness of teaching method excellent; 95% of learners felt content contributed valuable information that will assist them in improving the quality of care for their patients.

Patient Outcomes
Participants: 953, with 13,056 scenes visited. Scenes are topic specific, so each scene is a unique topic. Patients engaging in the ProPatient activity 13 scene visits (topic areas) during

their participation in the activity. The data of their actions within the activity provides valuable insights into what patients are interested in learning about and what their needs are.

Topics/Scenes of most interest:



Survey data provided yet another dimension of insight into the program by actively soliciting the opinion of the learners within the context of the self-directed and interactive video journey that each learner takes. Many of the survey questions attempted to determine if the patients have the tools they need to be participatory in their health care.

- Of the 213 patients who responded to the survey question about the largest challenges they face, taking off time from work for doctors visits (27%) and worrying about how the people around will respond to their situation (27%) was cited most frequently.
- When asked if they feel their clinician adequately explained testing options, 50% felt they mostly understood what their doctors explained about testing. 27% felt they didn't understand, and 8% indicated they felt the Internet to be more useful.
- 28% of patients expressed that they do not feel as though they understand their medication side effects.
- 49% of patients feel their relationship with their doctor could be better; 16.4% said they have an excellent relationship with their doctor, which is an important factor in shared decision making.

Impact Rationale

Impact of the Clinician Activity

This educational activity met the desired outcomes as initially proposed in the grant request.

- Participants demonstrated improved knowledge and competence in the selection of targeted therapies for specific genetic mutations, including:
    - Selection of therapy for theoretical case patients with KRAS and ROS-1 mutations
    - Knowledge of second- and third-generation therapies
    - Participants demonstrated improved knowledge and competence with available and emerging immunotherapies, including:
        - The role of PD-L1 testing
        - Differences between available and emerging immunotherapies
        - Factors that may guide identification of candidates for immunotherapy

- 90% of clinician participants reported that they had increased the frequency in which they engage their patients with NSCLC in shared decision-making since participating

Participants demonstrated improvements in awareness and application of available and emerging targeted agents and immunotherapies for NSCLC. The most accessed resources from the activity included the patient education preview, and NCCN guidelines, this may translate into the increased attention to shared decision-making reported by participants.

Impact of the Patient Activity

88% of patients feel they learned from the patient education program, however, 41% feel there is still much they don't understand. When polled early in the activity, 86% said they are somewhat concerned that they don't have enough knowledge about NSCLC, when the question was asked later in the program that number dropped to 66%. In-depth patient education on therapy for NSCLC is still needed.

- 58% of patient participants felt they learned from the program and were able to understand their diagnosis; however, 74% of patient participants reported a need for more information on NSCLC
- 44% of patient participants feel that they are only "somewhat" informed about medications

Opportunities for future education:

- Continued education on new and emerging targeted therapies and immunotherapies and practice-changing clinical trial data; include expert interpretation of data and application in clinical practice
- Case-based education of diverse, complex patients with NSCLC
- Management of potential immune-related adverse events with available immunotherapies, including long-term effects as clinical experience with these agents accumulates
    - Participants self-reported a need for education in this area
    - Participants reported low confidence in the management of adverse events