

The Canadian Lung Cancer Conference 2016

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ABSTRACT

Each February, the Canadian Lung Cancer Conference brings together lung cancer researchers, clinicians, and care professionals who are united in their commitment to improve the care of patients with lung cancer. This year's meeting, held 11–12 February, featured a resident education session, a welcome dinner, networking sessions, lectures, breakout sessions, debates, and a satellite symposium. Key themes from this year's meeting included innovations across the care spectrum and results of recent clinical trials with targeted agents, immuno-oncology agents, and novel drug combinations.

Key Words Lung cancer, multidisciplinary meetings, survival, quality of life

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Coming together is a beginning; keeping together is progress; working together is success.

— Henry Ford

INTRODUCTION

The 2016 Canadian Lung Cancer Conference (CLCCO) was held in Vancouver, British Columbia, 11–12 February. Now in its 16th year, the CLCCO continues to gain momentum, growing steadily in attendance and scientific content. A record 352 participants—including medical oncologists, respirologists, radiation oncologists, thoracic surgeons, oncology nurses, residents, students, pharmacists, and industry representatives—attended, united by the single goal of making things better for lung cancer patients.

The strength of the meeting is that it gives participants an opportunity to learn about the most significant recent breakthroughs across the spectrum of lung cancer care, from imaging and molecular testing, to surgery and therapy selection, to side effects management and palliative care. Experts can reflect on the most recent data in the field, discuss the controversies, and provide their perspectives. This year, presenters discussed the results of recent clinical trials with targeted agents, immuno-oncology agents, and novel drug combinations. They described innovations in radiotherapy and surgery, and argued about the best sequencing of treatments. They debated mandatory PD-L1 expression testing. Meeting highlights follow.

RESIDENT EDUCATION SESSION

Trainee education is a key component of the CLCCO. The Community Academic Research Education faculty conducted a Resident and Trainee Education meeting on

Thursday, 11 February 2016. That meeting, chaired by Drs. Devin Shellenberg (BC Cancer Agency) and Randeep Sangha (Cross Cancer Institute) featured presentations from Drs. Sue Yom (University of California, San Francisco, CA), Rosalyn Juergens (McMaster University), Andrea Bezjak (Princess Margaret Cancer Centre), David Palma (London Health Sciences Centre), and Yu Shyr (Vanderbilt University, Nashville, TN).

CLCCOO WELCOME DINNER

Attendees were welcomed by Dr. Barbara Melosky, and met old friends and new. Dr. Prof. Filippo de Marinis (Istituto Europeo di Oncologia, Milan, Italy) provided context for the meeting by summarizing the most recent lung cancer breakthroughs, acknowledging each of his favourites with “personal awards.”

The second speaker, Mr. Simon Keith, is the longest living heart transplant recipient—now approaching his 30-year transplant anniversary on 7 July 2016. He moved attendees with his story of growing up in an athletic household, becoming ill and having a heart transplant, struggling to recover, and pursuing his post-transplant career: He is the first athlete to have played professional sports after having undergone a heart transplant. He shared some of the incredible coincidences he experienced after finally meeting the family of his heart donor.

SYMPOSIUM BREAKFAST

The symposium titled “Evolving NSCLC Post-Platinum Treatment Landscape: Controversies in Sequencing” provided an energetic start to the day. Conducted by Oncology Education with sponsorship from Lilly, the session included

a review of the current non-small-cell lung cancer (NSCLC) treatment landscape, new targeted treatment strategies for relapsed stage IV NSCLC, including antiangiogenic and immuno-oncologic agents, and a discussion of current treatment controversies.

The featured speaker, Dr. Maurice Pérol (Centre Léon-Bérard, Lyon, France) reviewed data from recent clinical trials. He focused on inhibition of vascular endothelial growth factor receptor, new bevacizumab combinations, and selected data from the REVEL and LUME-LUNG 1 trials, with emphasis on the impact of histology. A key point was that the most aggressive NSCLC tumours are likely to benefit by angiogenesis targeting in the second line.

MAIN CONFERENCE SESSIONS

Co-chairs Drs. Barbara Melosky and Cheryl Ho officially kicked off the meeting by welcoming all participants. Dr. Glenwood Goss, Chair, Thoracic Oncology Site Committee from the Canadian Cancer Trials Group welcomed all participants. He described some of the ongoing Canadian Cancer Trials Group lung cancer clinical trials, highlighting the immuno-oncology trials that are either in the planning or initiation stages, plus a number of other studies opening in 2016. He thanked everyone—including thousands of patients—for participating in Canadian Cancer Trials Group studies and concluded with a quote from Henry Ford: “Coming together is a beginning; keeping together is progress; working together is success.”

Medical Oncology Session (Chair: Dr. Barbara Melosky)

Dr. Roy Herbst (Yale Cancer Centre, Smilow Cancer Centre at Yale, New Haven, CT) presented a talk titled “Lung Cancer: Today and Tomorrow. Personalized Therapy for Advanced NSCLC from BATTLE to Immunotherapy.” Herbst reviewed the history of NSCLC drug development and how the standard of care has changed. He described some of the new trial designs, such as basket trials, umbrella trials, and master protocols. He called the LUNG-MAP S1400 Lung Master Protocol a new paradigm for drug development and described many aspects of that trial, including the Canadian launch schedule. For the second part of his talk, Herbst discussed how immunotherapy is changing the way the health system thinks about lung cancer. He provided a thorough review of the PD-1 and PD-L1 immune pathways and described how immune-related adverse events are unique and have to be carefully monitored. A key point of his presentation was that it is vital to determine which patients are least and most likely to benefit from immunotherapy agents.

In response, Dr. Peter Ellis (Juravinski Cancer Centre) provided the Canadian perspective. With all the changes in lung cancer care since the early 2000s, a plethora of options has emerged. He talked about some of the most significant changes in the field, including the recent results of LUX-Lung 7 and trials of immune checkpoint inhibitors, and the implementation challenges that will have to be faced. He recommended judicious consideration about which patients to treat and for how long. He also recommended educating colleagues in internal medicine, the emergency room, and the intensive care unit about the toxicities associated with immune checkpoint inhibitors. He brought the

Canadian issue of cost into the discussion, speculating how cost will likely influence the implementation of therapeutic advances in lung cancer.

Radiation Oncology Session (Chair: Dr. Devin Schellenberg)

Dr. Susan Yom (University of California, San Francisco, CA) addressed issues and controversies in radiation oncology in her talk titled “Advanced Radiotherapy Technologies: Will They Make a Difference in Lung Cancer?” She reviewed the evolution of radiation therapy over the last several decades and explained the therapeutic ratio: the ratio of local control relative to toxicity. Although disease control continues to increase, treatment intensification has increased as well, and the therapeutic plateau might have been reached.

Yom described changes in technology, the resulting trials, and how the resulting evidence has influenced practice. She also described some of the ways in which technology could potentially help to increase the therapeutic ratio, including isotoxic boost (a reduced area of boost dose), dose acceleration, and improvements in dose distributions.

To provide a Canadian perspective, Dr. George Rodriques (Western University) talked about his recent involvement in the American Society for Radiation Oncology (ASTRO) guidelines. He opened by providing some background on the ASTRO guidelines, highlighting some of the controversies in lung cancer radiotherapy management, specifically issues with dose fractionation, palliative radiation, and postoperative radiation. He described his involvement with various ASTRO guidelines, including the consensus statement on palliative lung radiotherapy; practice guidelines for bone metastasis (highly controversial), brain metastasis, and thoracic radiotherapy palliation; and the radical or adjuvant radiotherapy lung guideline. Rodriques described the next guidelines to be updated and ended his presentation by specifically acknowledging the many Canadian ASTRO guideline contributors.

Respiratory Session (Chair: Dr. Stephen Lam)

Dr. David Yankelevitz (Mount Sinai Medical Center, New York, NY) delivered his talk on “CT-Detected Lung Nodules and Guided Biopsy” remotely. Increased use of computed tomography and screening has resulted in the increased detection of lung nodules, and although large solid nodules were typical in the past, he described how he is now routinely asked to biopsy very small nodules throughout the chest. He reviewed some of the various technologies used to visualize and measure nodule growth, including volumetric growth rate analysis, and presented some of the inherent challenges with volumetrics. He showed how the use of a beveled needle can overcome geometric considerations. The primary goal of his work is to determine if nodules are malignant or benign, and he encouraged strong relationships with cytologists, recommending joint radiology and cytology reports for early lung cancer.

Surgical Oncology Session (Chair: Dr. John Yee)

Dr. Tom D’Amico (Duke Cancer Institute, Durham, NC) provided a presentation on “Innovation in Lung Cancer Surgery.” He described innovations in general thoracic surgery, surgical research and innovation in clinical practice,

and some of the innovation obstacles. He talked about the relationship between innovation and the learning curve: difficult procedures have very flat learning curves. He stated how thoracoscopic lobectomy, a minimally invasive approach, was not being used despite its multiple advantages, and he used safety and oncologic efficiency to prove superiority, given that feasibility and quality of life have been insufficient to improve adoption. He then discussed the video-assisted thoracic surgery approach, the supporting evidence, and the various populations of patients that can benefit. He concluded by reviewing many types of surgical innovations and advancements for lung cancer.

BREAKOUT SESSIONS

The Radiation Oncology breakout session, chaired by Dr. Devin Schellenberg (BC Cancer Agency) featured 4 speakers: Dr. Andrea Bezjak (Princess Margaret Cancer Centre), “Lessons Learned from RTOG 0813”; Drs. David Palma and Alexander Louie (London Regional Cancer Centre), “Canadian Radiation Oncology Trials—Review of CAPRI?”; Dr. Alex Sun (Princess Margaret Cancer Centre), “Can We Go Beyond 60 Gy?”; and Dr. Kris Dennis (University of Ottawa), “Benefits/Pitfalls of Palliative Care Clinics in Rad Onc—Should We Be Doing This Everywhere?”

Ana Fistic, Catherine Pankras, and Kelly Zibrik (all BC Cancer Agency) chaired the Nursing breakout session. Lorraine Martelli (Cancer Screening and Response Initiative, ON) spoke about “Integrating Quality Palliative Care Through a Patient-Centered Approach”, Dr. Joe Giustino (Surrey Memorial Hospital and University of British Columbia) discussed “e-Cigarettes,” and Dr. Chad Lund (Fraser Valley Cancer Centre, BC Cancer Agency) presented “Physician-Assisted Dying.”

The Medical Oncology breakout session was chaired by Dr. Don Morris (Tom Baker Cancer Centre) and featured Dr. Leigh Revers (University of Toronto), “Biologics and Subsequent Entry in Lung Cancer Therapy”; Dr. Yu Shyr (Vanderbilt University School of Medicine, Nashville, TN), “The Challenges of High-Density Biomarker Adaptive Trials”; Dr. Frances Shepherd (University of Toronto), “The Changing World of *EGFR* Mutations”; and Dr. Marian Chen (University of Toronto), “Understanding Referral and Systemic Treatment Factors for Stage IV NSCLC.”

Drs. Stephen Lam and John Yee (BC Cancer Agency) co-chaired the Respiriologists and Surgeons breakout session, which featured case discussions.

DEBATES AND CONCLUSION

The highlight of the CLCCO is the debates. Chaired by Dr. Ron Burkes (Mount Sinai Hospital, University of Toronto), experts faced off about some of the biggest controversies in lung cancer care. Participant votes determined the winner of each debate.

Debate 1: Thoracic Radiation for Extensive-Stage Small-Cell Lung Cancer

Arguing in favour was Dr. Tany Berrang (Vancouver Island Centre, BC Cancer Agency), and against, Dr. David Palma (Ontario Institute for Cancer Research). The results were

close: the “yes” side won with 52% of participant votes to the “no” side’s 48%.

Debate 2: Best Treatment for ALK M+ with 12 Asymptomatic Brain Mets

This debate featured three contenders: Dr. Stephanie Snow (QEII Health Sciences Centre) arguing in favour of ceritinib, Dr. Scott Owen (McGill University Health Centre) arguing for alectinib, and Dr. Penny Bradbury (Princess Margaret Hospital) arguing in support of crizotinib. This debate saw phase III randomized trials with crizotinib in the lead (54%), followed by alectinib (32%), and ceritinib (13%).

Debate 3: PD-L1 Biomarker Is Needed in Squamous Carcinoma of the Lung

This debate was a rematch between Dr. Normand Blais (Université de Montréal), arguing in favour of the PD-L1 biomarker, and Dr. Charles Butts (University of Alberta) arguing against. Participants favoured “no” (58%) over “yes” (42%).

Lifetime Achievement Award

Dr. Cheryl Ho presented the Lifetime Achievement award to Dr. Frances Shepherd. This new award, sponsored by Bristol-Myers Squibb, celebrates an individual who exhibits all the characteristics of a successful medical oncologist: mentorship of future generations, contribution to the understanding of lung cancer through research and clinical trials, leadership in the field of thoracic oncology, and a long career in the field. Shepherd is dedicated to curing lung cancer, has mentored many medical oncologists, has spearheaded trials that have changed the standard of care, and was recently recognized with the Order of Canada for her many contributions.

SUMMARY

The CLCCO brought people together in support of the same goal: to prolong the lives of lung cancer patients and to improve their quality of life. Dr. Melosky adjourned the meeting by encouraging all attendees to mark their calendars for the next meeting, 9–10 February 2017.

All presentations from the 2016 conference are available at <http://www.clcco.ca> (password: clcco2016).

CONFLICT OF INTEREST DISCLOSURES

We have read and understood Current Oncology’s policy on disclosing conflicts of interest, and we declare the following interests: BM has received honoraria from Boehringer Ingelheim, Eli Lilly, Novartis, Pfizer, Roche, Merck, Bristol-Myers Squibb, Novartis, and AstraZeneca, and research funding from Roche and Bayer; CH has received honoraria from AstraZeneca, Boehringer Ingelheim, Bayer, Pfizer, Bristol-Myers Squibb, Roche, and Eli Lilly, and research funding from AstraZeneca, Pfizer, Roche, and Sanofi Genzyme.

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