RTP ONDEMAND

Head & Neck/Thyroid

CME Information

TARGET AUDIENCE

This activity is intended for medical oncologists, hematology-oncology fellows and other healthcare providers involved in the treatment of head and neck cancers and thyroid cancer.

OVERVIEW OF ACTIVITY

Thyroid cancer is one of the most rapidly increasing cancers in the United States with an estimated 62,450 new cases expected to be diagnosed in the United States in 2015. Most patients with thyroid cancer can be cured with local treatments and radioactive iodine. Medical oncology intervention typically only occurs for those patients with progressive metastatic disease. Head and neck cancers account for approximately 3% of all cancers in the United States. Treatment for patients with head and neck cancer is complex and requires a multidisciplinary team of individuals with expertise in the special care of these patients.

Published results from ongoing trials lead to the continuing emergence of new therapeutic agents and changes in the indications for existing treatments. In order to offer optimal patient care, the practicing medical oncologist must be well informed of these advances. This program uses one-on-one discussion with Dr Ezra Cohen about treatment controversies and the integration of key data sets into the practical management of cancers of the head, neck and thyroid.

LEARNING OBJECTIVES

- Apply the results of emerging clinical trial data to the best-practice care of patients with cancers of the head, neck and thyroid.
- Formulate strategies to mitigate tyrosine kinase inhibitor-related side effects to maintain patients with thyroid cancer on active therapy while minimizing its effects on quality of life.
- Develop an understanding of emerging efficacy and side-effect data with novel agents (eg, mTOR inhibitors, BRAF inhibitors) under evaluation for thyroid cancer.
- Counsel patients with HPV-positive squamous cell carcinoma of the head and neck (SCCHN) about the contribution of the virus to the etiology and prognosis of their disease, and use this information and other relevant clinical factors to guide treatment decision-making.
- Recall the efficacy of promising investigational checkpoint inhibitors and EGFR inhibitors being evaluated in SCCHN.

ACCREDITATION STATEMENT

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HOW TO USE THIS CME ACTIVITY

This CME activity consists of a video component. To receive credit, the participant should watch the video, complete the Post-test with a score of 70% or better and fill out the Educational Assessment and Credit Form located at ResearchToPractice.com/RTPODNHNT2015/CME.

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FACULTY — The following faculty (and their spouses/partners) reported real or apparent conflicts of interest, which have been resolved through a conflict of interest resolution process:

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Consulting Agreements: AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Eisai Inc, Merck, Novartis Pharmaceuticals Corporation; **Speakers Bureau:** Bayer HealthCare Pharmaceuticals, Biodesix Inc.

MODERATOR — **Dr Love** is president and CEO of Research To Practice, which receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Amgen Inc, Astellas Scientific and Medical Affairs Inc, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Biodesix Inc, Biogen Idec, Boehringer Ingelheim Pharmaceuticals Inc, Boston Biomedical Pharma Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Daiichi Sankyo Inc, Dendreon Corporation, Eisai Inc, Exelixis Inc, Foundation Medicine, Genentech BioOncology, Genomic Health Inc, Gilead Sciences Inc, Incyte Corporation, Janssen Biotech Inc, Jazz Pharmaceuticals Inc, Lilly, Medivation Inc, Merck, Myriad Genetic Laboratories Inc, Novartis Pharmaceuticals Corporation, Novocure, Onyx Pharmaceuticals, an Amgen subsidiary, Pharmacyclics Inc, Prometheus Laboratories Inc, Regeneron Pharmaceuticals, Sanofi, Seattle Genetics, Sigma-Tau Pharmaceuticals Inc, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Taiho Oncology Inc, Takeda Oncology, Teva Oncology, Tokai Pharmaceuticals Inc and VisionGate Inc.

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Hardware/Software Requirements:
A high-speed Internet connection
A monitor set to 1280 x 1024 pixels or more
Internet Explorer 7 or later, Firefox 3.0 or later, Chrome, Safari 3.0 or later
Adobe Flash Player 10.2 plug-in or later
Adobe Acrobat Reader
(Optional) Sound card and speakers for audio

Last review date: July 2015

Expiration date: July 2016

Select Publications

A double-blind randomized phase III study evaluating the efficacy and safety of sorafenib compared to placebo in locally advanced/metastatic RAI-refractory differentiated thyroid cancer. NCT00984282

A phase III, randomized, double-blinded, placebo-controlled, multi-center study to assess the efficacy of ZD6474 versus placebo in patients with unresectable locally advanced or metastatic medullary thyroid cancer. NCT00410761

A randomized, double-blind, placebo-controlled study of chemotherapy plus cetuximab in combination with VTX 2337 in patients with recurrent or metastatic squamous cell carcinoma of the head and neck. NCT01836029

Abdul Razak AR et al. **A phase II trial of dacomitinib, an oral pan-human EGF receptor (HER) inhibitor, as first-line treatment in recurrent and/or metastatic squamous-cell carcinoma of the head and neck.** *Ann Oncol* 2013;24(3):761-9.

Ahmed M et al. **Analysis of the efficacy and toxicity of sorafenib in thyroid cancer: A phase II study in a UK based population.** *Eur J Endocrinol* 2011;165(2):315-22.

American Cancer Society. **Cancer facts & figures 2013.** Available at: **http://www.cancer.org**.

Bible KC et al. **Efficacy of pazopanib in progressive, radioiodine-refractory, metastatic differentiated thyroid cancers: Results of a phase 2 consortium study.** *Lancet Oncol* 2010;11(10):962-72.

Brose MS et al. **A phase II study of everolimus (E) and sorafenib (S) in patients (PTS) with metastatic differentiated thyroid cancer who have progressed on sorafenib alone.** *Proc ASCO* 2015;**Abstract 6072**.

Brose MS et al. **An open-label, multi-center phase 2 study of the BRAF inhibitor vemurafenib in patients with metastatic or unresectable papillary thyroid cancer (ptc) positive for the BRAF V600 mutation and resistant to radioactive iodine (NCT01286753, NO25530).** *Proc ECC* 2013;**Abstract 28**.

Brose MS et al. **Effect of age and lenvatinib treatment on overall survival for patients with 131I-refractory differentiated thyroid cancer in SELECT.** *Proc ASCO* 2015;**Abstract 6048**.

Brose MS et al. **Rationale and design of Decision: A double-blind, randomized, placebo-controlled phase III trial evaluating the efficacy and safety of sorafenib in patients with locally advanced or metastatic radioactive iodine (RAI)-refractory, differentiated thyroid cancer.** *BMC Cancer* 2011;11:349.

Brose MS et al. **Sorafenib in radioactive iodine-refractory, locally advanced or metastatic differentiated thyroid cancer: A randomised, double-blind, phase 3 trial.** *Lancet* 2014;384(9940):319-28.

Brose MS et al. **Updated overall survival analysis of patients with locally advanced or metastatic radioactive iodine-refractory differentiated thyroid cancer (RAI-rDTC) treated with sorafenib on the phase 3 DECISION trial.** *Proc ASCO* 2014;**Abstract 6060**.

Burtness B et al. **Afatinib versus placebo as adjuvant therapy after chemoradiation in a double-blind, phase III study (LUX-Head & Neck 2) in patients with primary unresected, clinically intermediate-to-high-risk head and neck cancer: Study protocol for a randomized controlled trial.** *Trials* 2014;15:469.

Burtness B et al. **LUX head and neck 2: A randomized, double-blind, placebo-controlled, phase III study of afatinib as adjuvant therapy after chemoradiation in primarily unresected, clinically high-risk, head and neck cancer patients.** *Proc ASCO* 2012;**Abstract TPS5599**.

Capdevila J et al. **Genomic landscape of anaplastic thyroid cancer.** *Proc ASCO* 2015;**Abstract 6033**.

Carr LL et al. **Phase II study of daily sunitinib in FDG-PET-positive, iodine-refractory differentiated thyroid cancer and metastatic medullary carcinoma of the thyroid with functional imaging correlation.** *Clin Cancer Res* 2010;16(21):5260-8.

Chaturvedi AK et al. **Human papillomavirus and rising oropharyngeal cancer incidence in the United States.** *J Clin Oncol* 2011;29(32):4294-301.

Chen LF et al. **New strategies in head and neck cancer: Understanding resistance to epidermal growth factor receptor inhibitors.** *Clin Cancer Res* 2010;16(9):2489-95.

Chow LQ et al. **A phase Ib study of pembrolizumab (Pembro; MK-3475) in patients (Pts) with human papilloma virus (HPV)-positive and negative head and neck cancer (HNC).** *Proc ESMO* 2014;**Abstract LBA31**.

Cohen EE et al. **Axitinib is an active treatment for all histologic subtypes of advanced thyroid cancer: Results from a phase II study.** *J Clin Oncol* 2008;26(29):4708-13.

Cohen EEW et al. **KEYNOTE-040: A phase III randomized trial of pembrolizumab (MK-3475) versus standard treatment in patients with recurrent or metastatic head and neck cancer.** *Proc ASCO* 2015;**Abstract TPS6084**.

Select Publications

Colevas AD. **New treatment standard in radioactive iodine-refractory thyroid cancer?** *Proc ASCO* 2014. **Discussant**.

D'Cruz A et al. **Elective versus therapeutic neck dissection in the clinically node negative early oral cancer: A randomised control trial (RCT).** *Proc ASCO* 2015;**Abstract LBA3**.

Dadu R et al. **Optimizing therapy for radioactive iodine-refractory differentiated thyroid cancer: Current state of the art and future directions.** *Minerva Endocrinol* 2012;37(4):335-56.

Elisei R et al. **Cabozantinib in progressive medullary thyroid cancer.** *J Clin Oncol* 2013;31(29):3639-46.

Fury M et al. **Clinical activity and safety of MEDI4736, an anti-PD-L1 antibody, in patients with head and neck cancer.** *Proc ESMO* 2014;**Abstract 988PD**.

Gupta-Abramson V et al. **Phase II trial of sorafenib in advanced thyroid cancer.** *J Clin Oncol* 2008;26(29):4714-9.

Hayes DN et al. **Phase II efficacy and pharmacogenomic study of selumetinib (AZD6244; ARRY-142886) in iodine-131 refractory papillary thyroid carcinoma with or without follicular elements.** *Clin Cancer Res* 2012;18(7):2056-65.

Ho AL et al. **Selumetinib-enhanced radioiodine uptake in advanced thyroid cancer.** *N Engl J Med* 2013;368(7):623-32.

Kim KB et al. **Clinical responses to vemurafenib in patients with metastatic papillary thyroid cancer harboring BRAF(V600E) mutation.** *Thyroid* 2013;23(10):1277-83.

Kloos RT et al. **Phase II trial of sorafenib in metastatic thyroid cancer.** *J Clin Oncol* 2009;27(10):1675-84.

Kurzrock R et al. **Activity of XL184 (cabozantinib), an oral tyrosine kinase inhibitor, in patients with medullary thyroid cancer.** *J Clin Oncol* 2011;29(19):2660-6.

Leboulleux S et al. **Vandetanib in locally advanced or metastatic differentiated thyroid cancer: A randomised, double-blind, phase 2 trial.** *Lancet Oncol* 2012;13(9):897-905.

Locati LD et al. **Treatment of advanced thyroid cancer with axitinib: Phase 2 study with pharmacokinetic/pharmacodynamic and quality-of-life assessments.** *Cancer* 2014;120(17):2694-703.

Machiels J et al. **Afatinib versus methotrexate (MTX) as second-line treatment for patients with recurrent and/or metastatic (R/M) head and neck squamous cell carcinoma (HNSCC) who progressed after platinum-based therapy: Primary efficacy results of LUX-Head & Neck 1, a phase III trial.** *Proc ESMO* 2014;**Abstract LBA29_PR**.

Machiels JP et al. **Afatinib versus methotrexate as second-line treatment in patients with recurrent or metastatic squamous-cell carcinoma of the head and neck progressing on or after platinum-based therapy (LUX-Head & Neck 1): An open-label, randomised phase 3 trial.** *Lancet Oncol* 2015;16(5):583-94.

Mehanna HM et al. **PET-NECK: A multi-centre, randomized, phase III, controlled trial (RCT) comparing PETCT guided active surveillance with planned neck dissection (ND) for locally advanced (N2/N3) nodal metastases (LANM) in patients with head and neck squamous cell cancer (HNSCC) treated with primary radical chemoradiotherapy (CRT).** *Proc ASCO* 2015;**Abstract 6009**.

Newbold K et al. **Efficacy and safety of lenvatinib for the treatment of patients with 131I-refractory differentiated thyroid cancer with and without prior VEGF-targeted therapy.** *Proc ASCO* 2015;**Abstract 6013**.

Popovtzer A et al. **Is there a role for induction chemotherapy in the setting of concomitant chemoradiation in locally advanced head and neck cancer: A systematic review and meta-analysis of randomized controlled trials.** *Proc ASCO* 2015;**Abstract 6068**.

Price KA, Cohen EE. **Current treatment options for metastatic head and neck cancer.** *Curr Treat Options Oncol* 2012;13(1):35-46.

Rothenberg SM et al. **Re-differentiation of radioiodine-refractory BRAF V600E-mutant thyroid carcinoma with dabrafenib: A pilot study.** *Proc ASCO* 2013;**Abstract 6025**.

Schlumberger M et al. **Final overall survival analysis of EXAM, an international, double-blind, randomized, placebo-controlled phase III trial of cabozantinib (cabo) in medullary thyroid carcinoma (MTC) patients with documented RECIST progression at baseline.** *Proc ASCO* 2015;**Abstract 6012**.

Schlumberger M et al. **Lenvatinib versus placebo in radioiodine-refractory thyroid cancer.** *N Engl J Med* 2015;372(7):621-30.

Segal NH et al. **Safety and efficacy of MEDI4736, an anti-PD-L1 antibody, in patients from a squamous cell carcinoma of the head and neck (SCCHN) expansion cohort.** *Proc ASCO* 2015;**Abstract 3011**.

Select Publications

Seiwert TY et al. **A phase Ib study of MK-3475 in patients with human papillomavirus (HPV)-associated and non-HPV–associated head and neck (H/N) cancer.** *Proc ASCO* 2014;**Abstract 6011**.

Seiwert TY et al. **A randomized, phase II study of afatinib versus cetuximab in metastatic or recurrent squamous cell carcinoma of the head and neck.** *Ann Oncol* 2014;25(9):1813-20.

Seiwert TY et al. **Antitumor activity and safety of pembrolizumab in patients (pts) with advanced squamous cell carcinoma of the head and neck (SCCHN): Preliminary results from KEYNOTE-012 expansion cohort.** *Proc ASCO* 2015;**Abstract LBA6008**.

Sherman EJ et al. **Combination of everolimus and sorafenib in the treatment of thyroid cancer: Update on phase II study.** *Proc ASCO* 2015;**Abstract 6069**.

Sherman SI et al. **A phase II trial of the multitargeted kinase inhibitor E7080 in advanced radioiodine (RAI)-refractory differentiated thyroid cancer (DTC).** *Proc ASCO* 2011;**Abstract 5503**.

Sherman SI et al. **Motesanib diphosphate in progressive differentiated thyroid cancer.** *N Engl J Med* 2008;359(1):31-42.

The Cancer Genome Atlas Network. **Comprehensive genomic characterization of head and neck squamous cell carcinomas.** *Nature* 2015;517(7536):576-82.

Vermorken JB et al. **Cisplatin and fluorouracil with or without panitumumab in patients with recurrent or metastatic squamous-cell carcinoma of the head and neck (SPECTRUM): An open-label phase 3 randomised trial.** *Lancet Oncol* 2013;14(8):697-710.

Vermorken JB et al. **Platinum-based chemotherapy plus cetuximab in head and neck cancer.** *N Engl J Med* 2008;359(11):1116-27.

Wells SA Jr et al. **Vandetanib in patients with locally advanced or metastatic medullary thyroid cancer: A randomized, double-blind phase III trial.** *J Clin Oncol* 2012;30(2):134-41.

Yakes FM et al. **Cabozantinib (XL184), a novel MET and VEGFR2 inhibitor, simultaneously suppresses metastasis, angiogenesis, and tumor growth.** *Mol Cancer Ther* 2011;10(12):2298-308.

Yang L et al. **Population-based study evaluating and predicting the probability of death resulting from thyroid cancer and other causes among patients with thyroid cancer.** *J Clin Oncol* 2013;31(4):468-74.