2018 Symposium Highlights Notable Oncology Research in Palliative Care

SAN DIEGO – Five noteworthy studies exploring key research regarding the biologic mechanisms of symptoms and caring for patients’ psychosocial and spiritual needs during cancer treatment and at end of life will be presented at the 2018 Palliative and Supportive Care in Oncology Symposium. Taking place from November 16–17, at the Hilton San Diego Bayfront in San Diego, abstracts presented at the symposium will provide information that is vital to the entire cancer care continuum.

Experts in palliative care are available to comment on the studies below.

Abstract 19:
Disparities in length of goals of care conversations between oncologists and patients with advanced cancer.

Oral Abstract Session B
Date: Saturday, November 17, 2018
Time: 10:15–11:30 a.m.
Location: Sapphire Ballroom C - Level 4
Presentation Time: 10:15–10:25 a.m.

Poster Session B (Board A2)
Date: Saturday, November 17, 2018
Time: 7:00–7:55 a.m.
Location: Sapphire Ballroom B - Level 4

Cardinale B. Smith, MD, PhD
Icahn School of Medicine at Mount Sinai,
New York, NY

Abstract 75:

Oral Abstract Session A
Date: Friday, November 16, 2018
Time: 10:00–11:30 a.m.
Location: Sapphire Ballroom C - Level 4
Presentation Time: 10:00–10:10 a.m.

Poster Session A (Board A3)
Date: Friday, November 16, 2018
Time: 11:30am–1:00 p.m.
Location: Sapphire Ballroom B - Level 4

Lise Nottelmann, MD
Institute of Regional Health Research, University of Southern Denmark and Department of Oncology,
Vejle Hospital,
Vejle, Denmark

Abstract 112:
Inpatient hospitalization costs associated with nausea and vomiting among patients with cancer.

Poster Session A (Board D16)
Date: Friday, September 28, 2018
Time: 11:30 a.m.–1:00 p.m.
Location: Sapphire Ballroom B - Level 4

Eric Roeland
Massachusetts General Hospital,
Boston, MA

Visit the Palliative and Supportive Care in Oncology Symposium Media Resource Center
Abstract 135:
Outpatient acupuncture effects on patient self-reported symptoms in oncology care: A retrospective analysis of real-world data.

Poster Session A (Board F7)  
Date: Friday, September 28, 2018  
Time: 11:30 a.m.–1:00 p.m.  
Location: Sapphire Ballroom B - Level 4  

Gabriel Lopez  
Mount Sinai Beth Israel Foundation  
New York, New York

Abstract 201:
Impact of parenteral opioid shortage on opioid prescriptions among patients seen by the palliative care team of a comprehensive cancer center.

Poster Session B (Board F3)  
Date: Saturday, November 17, 2018  
Time: 7:00–7:55 a.m.  
Location: Sapphire Ballroom B - Level 4  

Ali Haider  
University of Texas, MD Anderson Cancer Center  
Houston, TX

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View the disclosures for the News Planning Team.

ATTRIBUTION TO THE 2018 PALLIATIVE AND SUPPORTIVE CARE IN ONCOLOGY SYMPOSIUM IS REQUESTED IN ALL NEWS COVERAGE.

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About the American Academy of Hospice and Palliative Medicine:
The American Academy of Hospice and Palliative Medicine (AAHPM) is the professional organization dedicated to advancing hospice and palliative care and improving the care of patients with serious illness. Our activities focus on professional education and training, development of a specialist workforce, support for clinical practice standards, research, and public policy advocacy.

About ASCO:
Founded in 1964, the American Society of Clinical Oncology, Inc. (ASCO®) is committed to making a world of difference in cancer care. As the world’s leading organization of its kind, ASCO represents nearly 45,000 oncology professionals who care for people living with cancer. Through research, education, and promotion of the highest-quality patient care, ASCO works to conquer cancer and create a world where cancer is prevented or cured, and every survivor is healthy. ASCO is supported by its affiliate organization, the Conquer Cancer Foundation. Learn more at www.ASCO.org, explore patient education resources at www.Cancer.Net, and follow us on Facebook, Twitter, LinkedIn, and YouTube.

About the American Society for Radiation Oncology:
The American Society for Radiation Oncology (ASTRO) is the premier radiation oncology society in the world, with more than 10,000 members who are physicians, nurses, biologist, physicists, radiation therapists, dosimetrists, and other
health care professionals that specialize in treating patients with radiation therapies. As the leading organization in radiation oncology, the Society is dedicated to improving patient care through professional education and training, support for clinical practice and health policy standards, advancement of science and research, and advocacy. ASTRO publishes three medical journals, *International Journal of Radiation Oncology, Biology, Physics*, *Practical Radiation Oncology*, and *Advances in Radiation Oncology*, developed and maintains an extensive patient website; and created the *Radiation Oncology Institute*, a non-profit foundation to support research and education efforts around the world that enhance and confirm the critical role of radiation therapy in improving cancer treatment.

**About the Multinational Association of Supportive Care in Cancer:**
The Multinational Association of Supportive Care in Cancer (MASCC) is an international, multidisciplinary organization with members from six continents and nearly 70 countries. It operates in collaboration with the International Society of Oral Oncology (ISOO). Founded in 1990, MASCC is dedicated to research and education in all areas of supportive care for patients with cancer, regardless of the stage of the disease. MASCC promotes professional expertise in supportive care through research and the scientific exchange of ideas. A focus on supportive care leads to better treatment outcomes and greater quality of life for people with cancer.
Abstract 19: Disparities in length of goals of care conversations between oncologists and patients with advanced cancer.

Authors: Cardinale B. Smith, Sofya Pintova, Kerin B. Adelson, Jason Parker Gonsky, Natalia Egorova, Nina A. Bickell; Icahn School of Medicine at Mount Sinai, New York, NY; Mount Sinai Medical Center, Brooklyn, NY; Yale University, New Haven, CT; State University of New York Downstate and Kings City Hospital Center, Brooklyn, NY; Department of Health Evidence and Policy, Mount Sinai School of Medicine, New York, NY

Track: Communication and Shared Decision Making - Communication and Shared Decision Making

Background: Studies show minority patients have inadequate discussions about treatment, prognosis, and goals of care (GoC) which translate into substandard treatment, worse quality of life, and poorer survival than whites. However, there is a paucity of data on the quality of communication among minority patients with advanced cancer. We studied factors impacting the oncologists’ time spent during GoC discussion visits with their minority and non-minority patients. Methods: At community, academic, municipal, and rural hospitals, we recruited and randomized solid tumor oncologists and their newly diagnosed advanced cancer patients with <2-year prognosis to participate in a RCT, testing a coaching model of communication skills training. Patients were surveyed after post-imaging visits. These visits were audiotaped and median encounter time recorded. We define GoC discussions as patients report that their doctor talked about preferences for cancer treatment and clarified things most important to them given their illness. Comparisons were made using non-parametric tests. We used mix-effect models for risk adjustment. Results: For 22 randomized oncologists in the study, 142 post-imaging encounters were audiotaped. Of these, 38% were non-Hispanic White, 32% non-Hispanic Black and 19% Hispanic. The median face to face time oncologists spent during a GoC encounter with an advanced cancer minority patient was 12 minutes compared to 17 minutes for non-minorities (p=0.002). Median encounter times varied between the four sites, ranging from 10 minutes to 18 minutes, p=0.009. For visits that took place after progression of disease, duration of visit was 18 minutes versus 13 minutes if there were no progression, p=0.007. After controlling for clustering of the patients within the hospitals and progression of disease, time spent with minority patients remained less than with non-minority patients (15 min vs. 18 min, p=0.02). Conclusions: Oncologists’ time spent conducting GoC conversations with minority cancer patients is significantly less than with non-minority patients. Evaluating factors that contribute to this disparity is critically important to ensure minority patients receive high-quality cancer care.

Research Funding Source: PCORI

Disclosures: Cardinale B. Smith, MD, PhD, Consulting or Advisory Role with Teva, Honoraria with Teva; Sofya Pintova, MD, Consulting or Advisory Role with Celgene, Speakers' Bureau with Celgene; Kerin B. Adelson, MD, Consulting or Advisory Role with Wellpoint, Travel, Accommodations, Expenses from Genentech, Patents, Royalties, Other Intellectual Property with Genentech, Other Relationship with Genentech/Roche, Research Funding from Genentech/Roche.

Authors: Lise Nottelmann, Mogens Groenvold, Morten Aagard Petersen, Tove Vejlgaard, Lars Henrik Jensen; Institute of Regional Health Research, University of Southern Denmark and Department of Oncology, Vejle Hospital, Vejle, Denmark; The Research Unit, Department of Palliative Medicine, Bispebjerg Hospital, Copenhagen University Hospital and Department of Public Health, University of Copenhagen, Copenhagen, Denmark; The Research Unit, Department of Palliative Medicine, Bispebjerg Hospital, University of Copenhagen, Copenhagen, Denmark; None (retired), Vejle, Denmark; Department of Oncology, Vejle Hospital, Institute of Regional Health Research, University of Southern Denmark, Vejle, Denmark

Track: Integration and Delivery of Palliative and Supportive Care - Integration and Delivery of Palliative and Supportive Care

Background: Palliative care and rehabilitation may both improve quality of life, but research on their combination and early integration into oncology care is sparse. **Methods:** Adults diagnosed with non-resectable cancers within the last 8 weeks were randomized to standard oncology care alone or an additional offer of individually tailored palliative rehabilitation. Two mandatory consultations and a 12 week open contact with a specialized palliative care team were offered. An additional opportunity was participation in a multidisciplinary group program combining a patient/caregiver school with physical exercise, individual consultations, or both. Participants were assessed at baseline and after 6 and 12 weeks with an extended version of the EORTC QLQ-C30 questionnaire using the item banks for computer-adaptive testing to obtain improved measurement. At baseline participants were asked to choose what they needed help with the most from a list of possible 'primary problems' corresponding to 12 of the 15 QLQ-C30 scales. The primary outcome was the change in that "primary problem" scale measured as area under the curve across the 12 weeks. Group differences were tested in an adjusted linear regression model. **Results:** 301 patients with lung- (40%), gastrointestinal- (27%), prostatic- (18%), and various other solid tumors (15%) were included. 139 patients were allocated to the intervention group and 149 to the standard care group. The palliative rehabilitation intervention was received by 132. Of those, 26 received the two mandatory consultations only, 59 additionally participated in a group program, and 47 additionally received individual consultations without participation in a group. The intervention showed an effect for the primary outcome with an absolute between-group difference of 3.0 (0.0; 6.0) p = 0.047. The result was confirmed by a sensitivity analysis of the change from baseline to 12 weeks showing an absolute difference of 3.3 (1.0; 5.6) p = 0.005. **Conclusions:** A palliative rehabilitation intervention initiated soon after diagnosis and integrated in the standard oncology treatment improved quality of life.

**Research Funding Source:** The Danish Cancer Society

**Disclosures:** Lars Henrik Jensen, MD, PhD, Travel, Accommodations, Expenses from Roche, Amgen, & Bayer, Other Relationship with Merck, Research Funding (Institutional) from MSD
Poster Session A (Board D16)  Eric Roeland  
Date: Friday, September 28, 2018  Massachusetts General Hospital, 
Time: 11:30 a.m.–1:00 p.m.  Boston, MA  
Location: Sapphire Ballroom B - Level 4

Abstract 112: Inpatient hospitalization costs associated with nausea and vomiting among patients with cancer.

Authors: Eric Roeland, Ryan David Nipp, Kathryn Jean Ruddy, Gary Binder, William L. Bailey, Diana T. Amari, Hemanth Kanakamedala, Rudolph M. Navari; Massachusetts General Hospital, Boston, MA; Mayo Clinic, Department of Oncology, Rochester, MN; Helsinn Therapeutics, Inc., Iselin, NJ; Helsinn Therapeutics, Iselin, NJ; Genesis Research, Hoboken, NJ; University of Alabama at Birmingham, Birmingham, AL

Track: Communication and Shared Decision Making - Integration and Delivery of Palliative and Supportive Care

Background: Reducing hospitalizations for chemotherapy-related toxicities represents an opportunity to improve both the quality and cost of cancer treatment. Nausea and vomiting (NV) account for almost 10% of “avoidable” toxicity-related post-chemotherapy hospitalizations (2016 Medicare data). We sought to evaluate the event cost of NV-related hospitalizations among patients with cancer from a US payer perspective. Methods: From a large US claims database (Truven MarketScan), we identified hospitalizations with NV as the primary diagnosis and cancer as a secondary diagnosis (01/2011-06/2017). This method increases specificity for NV as the principal hospitalization factor, while underreporting the prevalence of NV as a contributory factor. To determine event costs, we evaluated hospital and other reimbursement during the hospitalization. To explore subgroup differences, we stratified results by tumor type, payer type, admission route, receipt of highly emetogenic chemotherapy (HEC; 2017 definition includes carboplatin AUC ≥4) and antiemetic prophylaxis. We adjusted all costs to 2017 US dollars. Results: Among 918,192 hospitalizations involving cancer, we identified 80,995 with both NV and a cancer diagnosis code. Of these, 5,293 had NV as the primary diagnosis and 62 lacked cost data. Patients (mean age = 57.7±16.2) were 67% female. Median hospital length of stay was 4 days and mean cost per hospitalization was $15,085. Non-Medicare admissions (82%) had a higher mean cost vs. Medicare ($15,737 vs. $12,111, p < 0.01). We found < $1,000 difference between the highest and lowest cost per hospitalization among the 6 most common tumor types. We found the 65% of patients with a chemotherapy claim ≤30 days prior to hospitalization had costs of $13,882 per event. Among the 45% of chemotherapies that were HEC, > 50% lacked an NK1 receptor antagonist as prophylaxis. Conclusions: The average cost of NV-related hospitalizations among patients with cancer exceeds $15,000 per event, highlighting the need to effectively address this symptom. Roughly half the hospitalizations involved HEC, with over half of those patients not receiving guideline-based antiemetic prophylaxis.

Research Funding Source: No funding source disclosed

Disclosures: Eric Roeland, MD, Consulting or Advisory Role with Helsinn Healthcare, Napo Pharmaceuticals, AIM Specialty Health, Oragenics, & Pronova (Institution), Honoraria from Pfizer; Kathryn Jean Ruddy, MD, MPH, Patents, Royalties, Other Intellectual Property with technology licensed by Mayo Clinic to AliveCor (An Immediate Family Member), Stock and Other Ownership Interests with Merck & Pfizer; Gary Binder, MBA, Employment with Helsinn Therapeutics, Stock and Other Ownership Interests with Celgene; William L. Bailey, PharmD, Employment with Helsinn Therapeutics, Stock and Other Ownership Interests with Pfizer; Diana T. Amari, PhD, Research Funding from Helsinn Therapeutics (Institution); Hemanth Kanakamedala, Research Funding from Helsinn Therapeutics.
**Poster Session A (Board F7)**

**Date:** Friday, September 28, 2018  
**Time:** 11:30 a.m.–1:00 p.m.  
**Location:** Sapphire Ballroom B - Level 4

**Gabriel Lopez**  
Mount Sinai Beth Israel Foundation  
New York, New York

**Abstract 135:** Outpatient acupuncture effects on patient self-reported symptoms in oncology care: A retrospective analysis of real-world data.

**Authors:** Gabriel Lopez, M. Kay Garcia, Wenli Liu, Michael Spano, Susan Underwood, Janet L. Williams, Rocio Moguel, Yisheng Li, Seyedeh Dibaj, Eduardo Bruera, Lorenzo Cohen; University of Texas, MD Anderson Cancer Center, Houston, TX; The University of Texas MD Anderson Cancer Center, Houston, TX; University of Texas MD Anderson Cancer Center, Houston, TX

**Track:** Communication and Shared Decision Making - Integration and Delivery of Palliative and Supportive Care

**Background:** Increased access to complementary therapies such as acupuncture at academic medical centers has created new opportunities for management of cancer and cancer treatment related symptoms. **Methods:** Patients presenting for acupuncture treatment during calendar year 2016 at an outpatient integrative medicine clinic in a comprehensive cancer center were asked to complete a modified Edmonton Symptom Assessment Scale (ESAS; 16 symptoms, score 0-10, 10 worst possible) before and after each visit. ESAS subscales analyzed included global (GDS; score 0-90), physical (PHS, 0-60), and psychological distress (PSS, 0-20). ESAS symptom score change pre/post treatment and from baseline visit to first follow up were evaluated by paired t-test. **Results:** Of 375 participants [mean age 55.6, 68.3% female, 73.9% white, most common cancer diagnosis of breast (32.8%) and thoracic/head&neck (25.9%)], 73.3% had at least one follow-up treatment [mean 4.6 (SD 5.1) treatments]. Highest/worst symptoms at baseline were poor sleep (3.92), fatigue (3.43), well-being (3.31), and pain (3.29). Statistically significant reduction/improvement (pre/post) was observed for all ESAS symptoms and subscales for the initial treatment (p <0.001). Hot flashes had the highest mean reduction (-1.93), followed by fatigue (-1.72), numbness/tingling (-1.70), and nausea (-1.67). Clinically significant reductions were also observed for ESAS subscales of GDS (-6.09; p=0.048). Clinical response rates (reduction ≥1) on follow-up were highest for symptoms of spiritual pain (58.9%), dry mouth (57.8%) and nausea (57.3%). **Conclusions:** Outpatient acupuncture was associated with immediate and longitudinal significant improvement across a range of symptoms commonly experienced by individuals during cancer care. Further research is needed to better understand frequency of treatments needed in clinical practice to help maintain benefit.

**Research Funding Source:** Duncan Family Institute for Cancer Prevention and Risk Assessment

**Disclosures:** Eduardo Bruera, MD, Research Funding from Helsinn Healthcare; Lorenzo Cohen, PhD, Consulting or Advisory Role with Cancer Treatment Centers of America & Anhui China Resources Jinchan Pharmaceutical Co., Ltd, Travel, Accommodations, Expenses from Teva, Honoraria from Teva.
Abstract 201: Impact of parenteral opioid shortage on opioid prescriptions among patients seen by the palliative care team of a comprehensive cancer center.

Authors: Ali Haider, Yu Qian, Zhanni Lu, Syed Mussadiq Ali Akbar Naqvi, Amy Zhuang, Akhila Sunkepally Reddy, Shalini Dalal, Joseph Anthony Arthur, Kimberly Cochien Tanco, Rony Dev, Janet L. Williams, Jimin Wu, Diane D. Liu, Eduardo Bruera; The University of Texas MD Anderson Cancer Center, Houston, TX; University of Texas MD Anderson Cancer Center, Houston, TX

Track: Caregiver Support - Symptom Biology, Assessment, and Management

Background: Recent parenteral opioid shortage (POS) has the potential to impact cancer pain management in hospitalized patients. This study aims to compare changes in the opioid prescriptions by the inpatient palliative care (PC) team before and after the institution first reported the POS. Methods: We reviewed and compared the electronic health records of 386 consecutive eligible consultations seen by the inpatient PC team equally in one month before and after the announcement of POS on February 8, 2018. The eligibility criteria include (1) cancer diagnosis, (2) ≥18 years of age, (3) taking opioid medication at the time of consultation, and (4) having at least two consecutive visits with the PC team. Patient demographics, cancer type, opioid type, route, and dose defined as the morphine equivalent daily dose were assessed. Results: POS was associated with less use of parenteral opioids (patient controlled analgesia, and intravenous breakthrough) and more use of non-parenteral opioids (extended release, transdermal, and oral breakthrough) by the referring oncology teams, and PC team (P<.001) (Table 1). At first PC follow-up, significantly less proportion of patients achieved better pain control after POS [119/193 (62%) versus 144/193 (75%) (P=.006)] However, at second PC follow-up, the proportion of pain improvement was similar in both cohorts. Conclusions: There is a significant change in opioid routes associated with POS. POS was associated with worse analgesia. More research is needed to better understand the impact of POS on cancer pain management.

Changes in Opioid Routes before and After the Parenteral Opioid Shortage (POS)

<table>
<thead>
<tr>
<th></th>
<th>Frequency (%)</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Before POS²</td>
<td>After POS²</td>
</tr>
<tr>
<td>By Oncology team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Parenteral¹</td>
<td>202 (65)</td>
<td>258 (82)</td>
</tr>
<tr>
<td>Parenteral²</td>
<td>109 (35)</td>
<td>56 (18 )</td>
</tr>
<tr>
<td>By Palliative Care team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Parenteral¹</td>
<td>179 (53)</td>
<td>240 (71)</td>
</tr>
<tr>
<td>Parenteral²</td>
<td>159 (47)</td>
<td>96 (29 )</td>
</tr>
</tbody>
</table>

¹Includes extended release, transdermal, and oral breakthrough opioids.²Includes patient controlled analgesia, and intravenous breakthrough opioids.³The total frequency exceeds the sample size since patients were prescribed multiple routes of opioids.

Research Funding Source: No funding source disclosed

Disclosures: Eduardo Bruera, MD, Research Funding from Helsinn Healthcare.