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JL601

Advanced Practice Nurse Orientation

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Objective: The Rutgers Cancer Institute of New Jersey is New Jersey's only NCI-designated cancer center. The mission and vision of the center is to provide the most advanced comprehensive and compassionate cancer care to adults and pediatric patients. Advanced Practice Providers (APPs) are an essential component of the multidisciplinary team and provide care to patients throughout the disease trajectory. At the Rutgers Cancer Institute of New Jersey, APPs perform a variety of procedures, including bone marrow biopsies, administer treatment intrathecal and through Ommaya reservoirs, pre- and post-op care and teaching, and lead symptom management and survivorship clinics. APPs are also leaders in RCINJ's participation in the Oncology Care Model. Despite the critical role of the APP, there was not a formalized training program in place. From 2016–2017, several new advanced practice nurses required extended orientations (beyond 6-month probationary period) and identified that more training would help improve their challenges with role transitioning. Additionally, as the demand for APPs increased, it became necessary to hire more and more APPs who were new in the role, which further supported formalizing the onboarding program. **Methods:** The newly created onboarding experience for APPs was based off of Patricia Benner's novice to expert theory. The concept is that nurses develop skill and an understanding of patient care over time from a combination of a strong educational foundation and personal experiences. With this understanding in mind, our first step in the process was to create a competency for newly hired APPs that was modeled after the oncology nurse practitioners published by the Oncology Nursing Society (ONS, 2007). The second step was to hold a preceptor program to assist APPs to understand their role in training new orientees. Next, a 2-day formalized in-person orientation was implemented that included other members of the clinical operations and research teams. Orientation calendars were developed and APPs participated in a variety of enduring and in-person educational sessions, along with shadowing experiences for 3 months. They received additional education in topics that included advanced laboratory interpretation, radiology interpretation, and palliative care. Additional education was provided specific to the tumor study group the APP was assigned to. **Results:** Two new APPs went through the training program with positive results. Both APNs completed the training within the 12-week allotted time frame. This was three months less than training was completed previously. Advanced practice nurses were able to independently bill and see patients sooner. They reported greater confidence in the role of the APP. **Conclusions:** Based on our post-orientation evaluation, our new formal orientation program was successful in improving the quality of the onboarding experience and allowed APPS to function autonomously and independently bill sooner. **Recommendations:**

Expand this training model to other nursing roles, including nurse navigators and clinical trial staff; conduct ongoing APP preceptor training.

JL602

Advanced Practice Provider Model for Urgent Oncology Care

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Background: Advanced Practitioners (APs) play a crucial role in the management of oncology patients. At our institution, the Abramson Cancer Center at the Hospital of the University of Pennsylvania, we have implemented an AP-run Oncology Evaluation Center (OEC) in an attempt to decrease emergency department visits by oncology patients. The OEC provides urgent, same-day appointments for established oncology patients who develop new symptoms related to their cancer, cancer treatments, or comorbid conditions. The OEC is able to provide immediate evaluation and care for patients with many cancer-related symptoms, including but not limited to: nausea/vomiting, diarrhea, constipation, dehydration, pain, neutropenic fever and other infections, acute deep vein thrombosis/pulmonary embolism, hypercalcemia of malignancy, and acute kidney injury. The OEC has six dedicated infusion chairs for administration of hydration, blood products, antibiotics, antiemetics, pain medications, and more if needed. Our aim was to determine the impact of the OEC on decreasing emergency department visits by oncology patients. **Methods:** Patients are referred to the OEC through their primary oncology provider after triage to determine eligibility. Patients are not eligible for the OEC if they are unknown to Penn Oncology, exhibit life-threatening symptoms, have severe mental status changes or bleeding, are suffering from head trauma or marked respiratory distress, or if they are unable to safely tolerate waiting for their appointment. After evaluation by one of the APs, patients are either sent to the infusion suite for treatment, discharged to home, directly admitted to the hospital, or sent to the emergency department for further care. **Results:** A total of 1,616 patients have been evaluated in the department since the time of the initial opening in November 2016. Furthermore, utilization of the department has almost doubled in the last 5 months when compared to the first 6 months of operation. A total of 427 patients were seen from November 2016–June 2017, whereas 778 patients were seen from January 2018–June 2018 (July 2018 data not yet available). In addition, the data reveals that of the 778 patients seen in the last 5 months, 80.2% (n = 624) were discharged to home, while only 13.1% (n = 102) were sent to the emergency department, and 6.7% (n = 52) were directly admitted to the hospital. **Conclusion:** The Abramson Cancer Center at the Hospital of the University of Pennsylvania is an NCI-designated cancer center that sees over 500 patients per day. As a result, many oncology patients are sent to the emergency department for evaluation due to the inability to schedule same-day appointments with their primary oncology providers. In the past 5 months alone, 778 patients have been evaluated at the Oncology Evaluation Center. Of these patients, 80.2% were discharged to home. Based on these results, we believe that the availability of an AP to run an urgent oncology evaluation center significantly decreases emergency department visits from oncology patients.

JL603

Bridging the Gap: A Bi-directional Educational Approach for Improving IO Knowledge for Oncology Advanced Practitioners

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Background: As new approvals and indications for immunotherapy continue to transform treatment approaches in community oncology, oncology practitioners have a constant need to equip themselves with knowledge about immunotherapeutic drugs. Practitioners need to know how to prescribe and recognize, triage, and manage immune-related adverse events and champion educating their colleagues about the benefits and risks of immunotherapy. The need for education across the clinical spectrum is critical given the vast array of systemic side effects possible with these therapies. **Objectives:** Through a multidisciplinary curriculum tailored to the host institution, the goal of the Association of Community Cancer Centers Visiting Experts program was to engage participants on the nuances and complexities of IO, with a focus on advancements, operations, and effective practices. **Methods:** The program was

designed by a group of multidisciplinary oncology faculty, including myself, and structured around a bi-directional, or peer-to-peer, learning format that enabled cancer program participants and expert faculty to share experiences in real-time and identify effective practices for the complex implementation of IO. While oncology advanced practitioners learn about the clinical trials and science of IO, the experts learn about what it's like to administer the therapies in a real-world environment, with a far greater number and variety of patients than are seen in clinical trials. The curriculum centers on evolving challenges in the field, including patient selection, management of immune-related side effects, support for patients and caregivers, and effective approaches for educating clinical colleagues on the unique intricacies of IO. **Results:** A series of 10 concentrated, one-day workshops convened by multidisciplinary oncology faculty—comprised of an oncologist, administrator, nurse, and pharmacist experienced in the delivery of cancer immunotherapy—were held at cancer institutions nationwide in 2017 with 202 advanced oncology practitioners benefiting from this comprehensive program. For program participants, direct, peer-to-peer learning was vital. Participants not only valued the opportunity to connect with experts beyond their own programs who shared "on the ground" IO expertise, but their exposure to IO experts—especially from those involved in early immunotherapy trials—shored up their clinical confidence and validated their experiences. Participants know that they face future challenges in the expansion of their IO programs, such as using combination therapies—which will generate greater toxicity. Nonetheless, workshop participation emboldened staff and provided fresh ideas on how best to achieve their IO goals. Such goals include staffing a Symptom Management Unit by nursing professionals with immune-related adverse events expertise who can escalate care when required. **Conclusions:** This program demonstrated the success of a bi-directional educational approach and effectiveness of team-based learning. Given the rapid approvals and new indications for IO therapies that are transforming treatment approaches in oncology, nowhere is the education need greater for interprofessional learning than in the oncology multidisciplinary team. **Recommendations:** The program provides an opportunity to challenge a predominant mindset about what cancer treatment entails and to expose advanced oncology practitioners to the nuances of IO therapies, which could lead to improvements and optimization of the care and management of patients being treated on IO agents.

JL604

Case Study: Advanced Practice Nurse-initiated Advance Care Planning Discussions and Successful Completion of Advance Directives in a Community Oncology Practice

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Objective: To adopt the My Choices, My Wishes ACP (MCMW) program in a community oncology practice by the advance practice registered nurse (APRN) trained in advance care planning (ACP) counseling. Using the Patient Values and Goals for Healthcare (PVA) questionnaire during the first ACP counseling visit, patients share their values with their oncology care team. ACP is the ongoing process of communication between patients, family members/caregivers, and the oncology care team in order to understand, review, and plan for future healthcare decisions that promote shared decision-making in accordance with the patient's preferences. **Methods:** After successful rapport between the APRN and patients with various stages of cancer was built, patients were introduced to the MCMW PVA. ACP counseling was voluntary and took place in one to two visits, depending on patient ACP readiness. In Texas, the Medical Power of Attorney (MPOA) and Directive to Physicians Advanced Directives (AD) were reviewed and discussed with each patient. The PVA reflected their quality of life, health care values, and preferences for life-sustaining interventions. Patients were provided with an opportunity to complete their ADs or make another appointment. **Results:** Retrospective analyses revealed a total of 245 ACP counseling sessions between March 2017 and October 2017. The ACP conversations by the APRN led to completion of AD documents, which included MPOA; 96.87% Directive to Physicians; 96.87% and/or Out of Hospital Do Not Resuscitate; 5%. At ACP visit #1, 161 patients were introduced to the MCMW ACP program, of which 44.7% of patients completed both ADs. At ACP visit #2, 84 patients 52.17 % completed their AD documents.

A small number of patients did not return for a visit #2, however, 3.13% of this group did complete the PVA. Every patient who made ACP visit #2 completed the MPOA and Directive to Physicians. **Conclusions:** Initiating ACP discussions, including end-of-life care decisions is challenging for patients, families and oncology providers. The avoidance of end-of-life communication has many inherit negative outcomes for patients and their families. Initiatives from APRNs can help the patients to understand the values and goals of care for their advanced stage cancer. ACP counseling will also help them complete the AD documents to reflect their wishes through shared decision-making. **Recommendations:** Guidelines from the American Society of Clinical Oncology (ASCO) and the National Comprehensive Cancer Network (NCCN) recommend that ACP discussions take place within 3 months of a diagnosis of incurable cancer. According to the Institute of Medicine (IOM), ACP conversations do not occur because patients, family members, and providers each wait for the other to initiate them. APRNs and physician assistants are often the drivers of ACP introduction, referrals, and follow-up appointments with patients throughout their cancer journey.

JL605

Creating a Pathway to Care for the "Undiagnosed" Patient

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Background: The Seattle Cancer Care Alliance (SCCA) is the site of the majority of ambulatory Hematology-Oncology care for patients in the University of Washington system. In most cases, patients with a new oncology diagnosis are referred with a pathologic diagnosis for treatment. In the academic setting, care is very subspecialized, making a clear diagnosis a necessity prior to scheduling an appointment. We lacked a mechanism for ensuring the patient was scheduled with the proper specialist if they did not have a pathologic diagnosis of cancer at the time of referral, resulting in frustration for our referring providers and our patients. Our goal was to provide timely access, ensure high-quality comprehensive care for our patients, and streamline the process for diagnostic workup. **Intervention:** We leveraged the extensive knowledge of our Advanced Practice Providers (APP) to manage these workups. We operationalized a plan to expedite referrals so that patients could be seen within 1 business day. The criteria for referral was 1) physical exam or imaging findings concerning for malignancy plus 2) symptoms such as weight loss, night sweats, etc. We worked with our Surgical and Interventional Radiology colleagues to prioritize these cases. We designated one 1-hour slot each day utilizing 5 APPs. The APPs provided their direct contact information to the patient, kept in communication with the patient regarding the diagnostic work up, plan of care, and finally, relayed the pathologic diagnosis and outlined next steps. Because of our multidisciplinary approach, the APPs were able to consult with our physician colleagues regarding complex cases to ensure the most appropriate workup. **Outcome:** Analysis was performed on the cases who presented between April 1, 2017 and May 30, 2018. Of these cases, 33 patients were seen in our clinic and met the above noted criteria. Of the 33 patients, 22 were diagnosed with a malignancy. All but one of those patients received care at our facility. Each patient was appointed within 1 business day of their desired appointment date. The median days from first visit to pathologic diagnosis was 10 days, with a range of 3 to 24 days. **Conclusion:** APPs are well-positioned to complete diagnostic workup of patients with suspected malignancy. We were able to expedite workups on behalf of referring providers, patients, and our medical oncology colleagues. We streamlined patient communications and alleviated significant patient anxiety with our model. This process allowed the APP an opportunity for professional development while ensuring timely access and improving quality of care. **Recommendation:** We have created a model to expedite workup for suspected malignancy that can be applied at other centers. This model capitalizes on the expertise of the APP and their system knowledge and the important components of the oncologic workup. In addition to expediting the workup, the "undiag-

nosed" pathway positively facilitated entry/access to the SCCA, which is important for both referring providers and patients seeking care. And finally, we were able to identify gaps within our system and work together to make the approach seamless for our patients.

JL606

Exploring Job Satisfaction and the Experience of Onboarding Among Hematology-Oncology APPs: A Phenomenological Qualitative Study

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Background: The inclusion of Oncology Advanced Practice Providers (APPs) into the health care team has demonstrated significant improvement in patient and health systems outcomes as it relates to access, continuity, and satisfaction with care. Their contribution also leads to lower costs due to fewer hospitalizations and shorter lengths of stay. There is scarce literature examining job satisfaction as it relates to the experience of onboarding APPs in the oncology subspecialty. For new APP hires, introduction into the role with a thoughtful plan that offers support, organization of resources, and assistance with assimilation into the organization is paramount. We predict that structured onboarding is minimal, varies between departments, and that a comprehensive, inclusive and supporting onboarding and mentorship plan will lead to better job satisfaction. **Objective:** The purpose of this qualitative phenomenological study is to examine the job satisfaction and onboarding experience of oncology APPs. **Methodology:** Phenomenology interprets an experience or fact by listening to the stories of the participants and examining the phenomena through the subjective eyes of the participants. Eight face-to-face interviews were conducted with APPs working primarily in the outpatient oncology division of a community-based academic institution in the Southeast. Questions explored various experiences in the APP role, including onboarding. Purposive sampling included participants of varying age, length of experience, and subspecialty. The intent of the interview was discussed with the participants, participation was voluntary, and verbal consent was obtained. Interviews were transcribed and emerging themes identified. Interpretative phenomenological analysis was utilized for coding purposes. **Results:** Common themes emerged. More than half of the APPs described a lack of understanding of the APP role by administration and physicians. Most reported gaps in oncology-specific knowledge upon entering their new role and sought out additional education on their own. Very few APPs had mentorship support from an APP peer and over 80% described a general lack of support either clinically or from administration. Many described feelings of isolation and lack of APP camaraderie. Structured onboarding was in place less than half of the time, varied even within department, and was not comprehensive. Despite this, job satisfaction was moderate with almost all subjects reporting greatest job satisfaction from caring for oncology patients. Job satisfaction was rated highest in those APPs who had more structured, inclusive onboarding. **Implications:** Qualitative analysis results reflect the need for a more comprehensive onboarding plan. An onboarding plan was developed to promote role assimilation and integration into the system and to ensure communication of organizational knowledge and structure. The plan includes facilitation of a mentorship between the new APP and APP colleagues. This is especially important in the community-based setting where clinics are often physically isolated from each other. Set meetings were coordinated between physicians, administrators, and the new hire to monitor progress. Educational resources and networking opportunities within the institution were included. **Recommendations:** A comprehensive onboarding plan should be considered for all oncology APPs. Further research is needed to confirm the positive impact of onboarding on oncology APP job satisfaction and explore the effects on attrition.

JL607

Harnessing the Electronic Health Record to Optimize Monitoring and Follow-Up of Oral Anti-Cancer Therapies

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Background: UCHealth pursued and became certified as a Quality Oncology Program from the Qual-

ity Oncology Practice Initiative (QOPI) through the American Society of Clinical Oncology (ASCO) in 2015. During our gap analysis to prepare for certification, we identified a deficit in our education, monitoring, and follow-up relating to oral anticancer therapies. Although we used QOPI as a benchmark, we sought to improve patient care and safety in the realm of oral anticancer therapies. **Methods:** UCHealth has implemented policies surrounding oral chemotherapy to include patient education, consent, use of the EHR for ordering, and patient monitoring of adherence and toxicity through development of a flowsheet. This includes the use of Best Practice Alerts (BPA) to trigger staff to evaluate adherence and compliance, smart texts to pull data into progress notes, silent BPAs to remind staff to call patients within 10 days of starting oral chemotherapy, and weekly reporting of staff compliance with assessing patient adherence. **Results:** EHR changes were implemented in May, 2015, with reporting of staff compliance beginning in September. At that time, UCHealth was only monitoring adherence and toxicity in 24% of patients on an oral anticancer therapy. Through continued quality improvement projects, staff education, and optimization of clinical decision support tools, UCHealth consistently monitors adherence and toxicity in over 85% of patients on an oral anticancer therapy. Results have been monitored for over 2 years with continued improvements seen. **Conclusions:** Using the reporting data, we are able to identify quality improvement projects to include discrete data such as individual staff member compliance. Continuous refinements of the BPA and report have occurred as a result of discrete data analysis by a multidisciplinary committee.

JL608

Impact of Addition of Carboplatin AUC ≥ 4 to Guidelines for Triplet Antiemetic Prophylaxis: A Gap in Quality Care and Guideline Adoption

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Background: Oncology advanced practitioners are well-suited to assess opportunities for cancer centers to adopt new care practices that address patient symptoms. In 2017, the National Comprehensive Cancer Network (NCCN) (2/2017) and ASCO (8/2017) each amended antiemetic guidelines to recommend adding an NK1 receptor antagonist (RA) to standard 5HT3 RA + dexamethasone (triple prophylaxis) upfront for patients receiving carboplatin AUC ≥ 4, matching existing recommendations for cisplatin and other highly emetogenic chemotherapy (HEC). This aligned those guidelines with recommendations made 3/2016 by the Multinational Association for Supportive Care in Cancer (MASCC). Subsequent physician adherence to the new guideline recommendations, and the potential consequences for avoidable post-chemotherapy acute care, merit study. **Methods:** In a large electronic health record database focused on integrated delivery networks (IBM Explorys), we identified carboplatin courses of therapy (≥ 14-day cycles as a proxy for AUC ≥ 4) initiated from 4Q 2012 through 1Q 2018. Guideline compliance, defined as triple prophylaxis at chemotherapy initiation, was evaluated. We also assessed 30-day post-chemotherapy acute care (inpatient admission or emergency department use) associated with nausea and vomiting (NV) and eight other toxicities included by the US Centers for Medicare & Medicaid Services (CMS) for the oncology outcome measure OP-35, consistent with their methodology. Similar outcome analysis was performed for ≥ 7-day cycles of other HEC, oxaliplatin, other IV chemotherapy, and highly/moderately emetogenic oral chemotherapy (MEC). **Results:** 10,239 courses were identified for carboplatin. Rates of upfront triple prophylaxis for carboplatin grew from 13% in 2013 to 16% in 2016; quarterly rates ranged from 9% to 19%. For the 4 quarters after the guideline change (2Q 2017–1Q 2018) quarterly rates averaged 15% (range 11%-20%), with no apparent trend over time. We observed 30-day acute care use in 31% of carboplatin courses, of which ≥ 1 of the ten OP-35 toxicities were seen in 75.5%. NV (with or without acute care use) was reported in 25% of carboplatin courses, and 28% of total OP-35 acute care events were associated with NV. Rates for NV, and rates of OP-35-related and NV-related acute care events after carboplatin were similar to those after other HEC chemotherapy or oxaliplatin, and higher than after non-HEC IV chemo-

therapy or oral HEC/MEC agents. **Conclusions:** Use of upfront triple antiemetic prophylaxis has not increased dramatically for carboplatin since NCCN and ASCO changed the definition of HEC to include carboplatin AUC > 4 in 2017. This may be due to lack of awareness of the change. Patients receiving carboplatin had similar rates of NV and related 30-day acute care events as other HEC, confirming that the new HEC definition fits clinical experience. **Recommendations:** Clinicians should adhere to the guidelines calling for triple antiemesis prophylaxis for carboplatin in order to reduce the considerable acute care events these patients experience within 30 days of chemotherapy. Oncology advanced practitioners are well-suited to lead the educational and behavior-change efforts required for practices to effectively implement this recent guideline recommendation and foster improvements in patient care and outcomes (which will be reported to CMS as OP-35 oncology outcome measures).

JL609

Improving Care of Patients With Head and Neck Cancer With a Multidisciplinary Toolkit

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Objective: In an effort to improve outcomes, communication, and quality care for patients with head and neck cancer, a Texas Oncology (TXO) Head & Neck Protocol Toolkit with standardized education materials was developed to serve as a basic resource. Combined radiation/chemotherapy can precipitate intense acute symptoms and prolonged late side effects. Unmanaged side effects can lead to treatment delays, chemotherapy dose deviations, and hospitalizations impacting curative intent. The use of patient education materials by well-informed providers empowers the patient-provider dyad to improve care, decrease ER visits and hospital admissions. Advanced Practice Providers (APP) effectively bridge gaps in complex patient care settings by working closely with the multidisciplinary team to provide high-quality care and achieve optimal patient outcomes. **Approaches:** A TXO multidisciplinary committee consisting of the medical director of quality programs, radiation oncologists, a dietitian, a pharmacist, and a radiation oncology APP met to discuss current practices throughout Texas and to create the standardized resource. The treatment checklist and a detailed outline were developed for consistency in head/neck visits by the radiation nurse practitioner with practicing APPs and nursing staff in mind that care for patients with head and neck cancer. It provides guidance for pretreatment, four key treatment intervals (days 1-10; 10-15, 15-25, 25-35), and follow-up guidelines for 5 years post radiation. The content reinforces five areas of essential patient self-care: mouth care, skin care, hydration, nutrition, and pain control with evidence-based care from the Oncology Nursing Society Putting Evidence Into Practice guidelines. Teaching sheets outline the radiation therapy process to help patients and caregivers anticipate and recognize symptoms before, during, and after treatment. Pictures demonstrate proper neck and jaw exercises to help maintain normal movement. Pharmacy provided pricing and information for commonly used products to treat symptoms. The registered dietician prepared patient education materials regarding nutrition, hydration and PEG tube information. **Outcome Measures:** This resource was released to TXO Sharepoint April 2018 for use in 176 offices throughout Texas that actively care for a diverse group of cancer patients. Only two of 131 APPs exclusively practice radiation oncology and 116 of the TXO offices are without APP support. Initial informal feedback from nurses and APPs indicates an improved comfort level in managing these patients. A focused outcome survey of pre-implementation and postimplementation of confidence level is planned in late 2018. Comparison of hospital readmission rates and ED visits is planned for early 2019. **Summary:** By using this toolkit, nurses empower patients and caregivers to manage toxicities and engage in their care. This toolkit's intent is to improve the quality of care across TXO sites with potential to impact 15,148 patients yearly. It has the potential to reduce hospitalizations, ER visits, and improve APPs' confidence, as well as improve patient self-care. **Implications:** This toolkit provides checklists and standardized resources for healthcare professionals. The goals were to integrate evidence-based standards and guidelines into nursing practice at the point of care as well as empower and equip patients to better understand treatment and side-effect management.

JL610

Infusion Center-based APP Role Reduces Emergency Department Visits for Symptom Management in the Adult Oncology Population

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Background: Emergency department visits can be unnecessary, costly, and potentially dangerous for oncology patients. Most symptom management concerns can be safely and competently handled more quickly in the outpatient setting, but provider access can be a barrier to care. Thus, providing a dedicated independent hospital-based advanced practice provider (APP) in the oncology infusion center may reduce unnecessary symptom burden and healthcare encounters. This project describes the role of an infusion center APP to proactively intervene and follow high-risk patients, triage and treat symptom management issues, and increase oncology patient access to care. Primary outcomes are to reduce symptom management emergency department encounters. **Approaches:** Patients identified as high risk were those who had a symptom management encounter with the infusion room APP and those receiving new start chemotherapy treatment. Patients were identified through referrals from clinic triage, RNs, and MDs, and chart review by the APP. Symptom management emergency department visits were those with a primary oncologic diagnosis and a secondary diagnosis of dehydration, nausea, vomiting, diarrhea, weakness, fatigue, pain, constipation, shortness of breath, fever, edema/swelling, headache, and medication refill. These visits were also classified as resolvable (discharge home from ED) or unresolvable (admitted from ED). Symptom management outpatients received a follow-up phone call or in-person visit by the APP within 48 hours of the initial encounter. This contact focused on resolution of symptoms, home care, or medications, and patient comfort level with their state of health. If further intervention was needed at the clinic, the patient appointment could be coordinated at the time of contact. The infusion APP now meets all new patients prior to their first dose of chemotherapy, and calls 5-10 days later, depending on expected time to common adverse reaction/symptom pattern. Follow-up calls reinforce administration of home-based antiemetic and symptom management regimens, assess for uncontrolled or concerning symptoms, and need for APP clinic evaluations. This intervention was added during the last month of the data-gathering period. **Discoveries:** Of 45 patient encounters by the APP over 3 months, 3 required emergency department evaluation that could not be completed in the outpatient setting; all three were admitted. An additional 3 others were directly admitted from the outpatient clinic, and 39 were discharged home from clinic with close or routine follow up. None of the new start chemotherapy patients needed a same-day APP appointment. Emergency department data over the same interval indicated that 30% of oncology patients presenting to the ED with symptom management diagnoses were resolvable, compared with prior year data showing 54% resolvable visits with the same parameters. **Interpretation:** The successful implementation of APP-led follow-up of high-risk oncology patients has increased access to care and decreased the need for symptom management Emergency Department visits in this patient population.

JL611

Lung Cancer Stigma, Social Support, and Psychosocial Distress

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Background: There is a longstanding causal relationship between cigarette smoking and lung cancer. Smoke-free policies and antismoking campaigns have been linked to the decline in smoking acceptance and contribute to the unintended consequence of stigmatizing smokers. Lung cancer is viewed as a self-inflicted disease and patients feel judged in a manner different from other cancers affecting social interactions between family, friends, and healthcare professionals. Lung cancer stigma contributes to depression, anxiety, poor self-esteem, guilt, shame, blame, threatens a person's social identity, and limits social support that deeply affects patients and their support persons. Additionally, a recent study attributed lung cancer stigma to the low screening rates among high risk smokers, a procedure aimed at identifying lung cancer in its early stages, therefore significantly contributing to long term survival. **Methods:** A review and evaluation of the psychometric properties of an investigator-developed instrument, "Lung

Cancer Stigma Scale" (LuCaSS) and the main findings from a cross-sectional observational study of 104 lung cancer patients assessing factors associated with lung cancer stigma will be discussed. The Model of Stigma Induced Identity Threat was provided the framework to examine stigma and the relationship between social constraints, self-esteem, and smoking and to test whether social support mediates the relationship between stigma, and depression/anxiety. **Results:** The LuCaSS was found to be a reliable and valid instrument measuring perceived lung cancer stigma (alpha = 0.89). The principle components analysis determined three subscales measuring internalized stigma: social rejections/judgment, blame/guilt, and shame. Social constraints, self-esteem, and smoking each significantly contributed to the prediction of stigma controlling for SES. Lung cancer patients with greater social constraints and lower self-esteem and who were smokers scored higher on stigma. Social support was a mediator for the relationship between stigma and depression but not for anxiety. The findings are consistent with Stigma-Induced Identity Threat Model. A stigmatized identity can lead to stress-related health outcomes such as depression. **Conclusion:** A lung cancer diagnosis has numerous negative psychosocial effects on patients. Integrating stigma tools (i.e., LuCaSS) in practice settings may assist with determining potential stigma-related distress among lung cancer patients. Emphasizing the need for social support and implementing more advocacy efforts may also help minimize the effects of stigma and depression. Future studies are necessary to further examine the role of social support in minimizing stigma and psychosocial distress.

JL612

Managing Pyrexia Reactions in Melanoma Patients Receiving Dabrafenib/Trametinib: Use of a Case Study to Highlight Current Management Strategies

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Background: Dabrafenib plus trametinib has been shown to improve overall survival and progression-free survival in *BRAF*-mutated metastatic melanoma. Twelve-month adjuvant therapy with dabrafenib-trametinib significantly prolonged relapse-free survival vs. placebo in patients with resected *BRAF* V600–mutant stage III melanoma, with ≈60% remaining relapse free at 3 years. Adverse events (AEs) led to treatment discontinuation in 26% of patients; pyrexia was most common (9%). There remains lower tolerability for AEs in the adjuvant vs. metastatic setting. Because of the substantial benefit with adjuvant dabrafenib-trametinib, it is important to optimize AE management and adherence to treatment. We present a case to highlight recommendations for pyrexia management. **Methods:** We report the case of a patient treated at an academic center and pyrexia management recommendations with an associated algorithm based on clinical experience and literature evaluation. Due to the recent approval of adjuvant dabrafenib-trametinib, we apply the learnings from this illustrative case in metastatic disease to the adjuvant setting. **Results:** We present a 29-year-old male with *BRAF* V600K–mutant metastatic melanoma who progressed on combination ipilimumab-nivolumab. The patient was started on targeted therapy with dabrafenib (BRAF inhibitor) 150 mg bid and trametinib (MEK inhibitor) 2 mg qd. Ten days after initiating therapy, the patient experienced fever of 39°C (102.2°F) with associated rigors. Dabrafenib was withheld while the patient continued full-dose trametinib. The patient was instructed to take ibuprofen 400 mg every 8h as needed. After 2 days on trametinib monotherapy, the patient redeveloped fever 38.9°C (102°F), and trametinib was interrupted. After 2 days off therapy, dabrafenib was resumed at first dose reduction of 75 mg bid along with full-dose trametinib 2 mg. Again, the patient developed fever (grade 2) despite prophylactic ibuprofen. After holding therapy until fever resolution, dabrafenib resumed at 75 mg bid and trametinib resumed at first dose reduction of 1.5 mg qd. The patient again developed fever (grade 3). Medication was held until fever resolution, and both drugs were restarted at the same dose with prednisone 5 mg. No recurrent fever episode has been reported. The patient has maintained stable disease > 15 months. This case illustrates clinical learnings from pyrexia management in patients treated with dabrafenib-trametinib. Although the prescribing information

recommends interrupting dabrafenib (and not trametinib) for uncomplicated fever ≤ 104°F, clinical experience indicates that both dabrafenib and trametinib should be interrupted at the first sign of pyrexia or its prodrome. Additionally, as observed in the above case, dose reduction appears to be ineffective in preventing recurrence of pyrexia and thus should be avoided. Dose interruption and the use of corticosteroids are the most effective means of preventing recurrent episodes. Patient education and communication are cornerstones to proactive AE management. A pyrexia-management algorithm rooted in our clinical experience and published literature will be provided, along with patient education recommendations for managing pyrexia and enhancing treatment adherence. **Conclusions/Recommendations:** Although pyrexia is common in patients treated with dabrafenib-trametinib, proactive management through dose interruption of both drugs at the first sign of pyrexia or its prodrome can help to effectively manage pyrexia episodes.

JL613

Nutritional Assessment and Management for Head and Neck Cancer Patients Receiving Definitive Radiation Therapy in the Community Setting

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Background: Approximately 65,000 people were diagnosed with head and neck cancer in the United States last year (ACS, 2018). Head and neck cancer treatment, which frequently involves chemotherapy and radiation, is highly toxic, resulting in side effects including mucositis, dysphagia, and weight loss (Wygoda et al., 2012). Maintaining oral intake and nutritional status can lessen the impact of these side effects (Ravasco, 2005). Many patients receiving treatment as an outpatient do not have access to nutritional counseling from a dietician (Pray, 2016). Advanced practice nurses (APNs) can fill this patient care void. **Objectives:** Implement and evaluate the feasibility of an evidence based practice bundle involving nutritional assessment and counseling. **Methods:** Medical records of 40 randomly selected patients who received definitive radiation or chemoradiation in the previous 2.5 years were reviewed to establish benchmarks for the implementation phase. A practice bundle was implemented. It included nutritional assessment with the PG-SGA (Ottrey, 2015), and nutritional recommendations based on the Academy of Nutrition and Dietetics, NCCN, and ESPEN guidelines. ANOVA, Wilcoxon two-sample test, and descriptive statistics were used to analyze the data. **Results:** Small sample sizes precluded achieving statistical significance. However, some results were clinically significant. For patients who received radiation only, percent weight loss of the historical group was 10.1% (n = 14) while the percent weight loss for those who received the practice bundle was 5.6% (n = 6). For patients receiving chemoradiation, percent weight loss of the historical group was 12.6% (n = 26), while percent weight loss for those who received the practice bundle was 11.2% (n = 5). Patients who received the practice bundle completed 100% of their intended radiation therapy treatments. The historical group completed 92.5% of their intended radiation therapy treatments. While none of the results were statistically significant, the group that achieved the greatest clinical improvement with implementation of the practice bundle was the radiation only group. This included decreased percent weight loss, decreased reliance on IV hydration, and no use of enteral feedings. The patients receiving chemoradiation also demonstrated clinically significant improvements in some secondary outcomes, but these were not as substantial. Nutritional visits were completed 93% of the time as intended during implementation of the practice bundle. **Conclusions:** The practice bundle was feasible and effective. Targeted assessment and nutritional counseling has been shown to decrease weight loss and side effects of treatment in several studies (Hopanci Bicakli et al., 2017; Isenring, Bauer, & Capra, 2007; Kang, Li, Huang, Dang, & Gao, 2016; Ravasco, 2005). The results of this quality improvement project mirrored many of their results. There were some barriers to implementation, including scheduling conflicts, occasionally requiring the patient to have an extra provider visit to complete the practice bundle. **Recommendations:** APNs frequently address symptom management with patients. With targeted education or partnership with a dietician, APNs are in an ideal role to provide nutritional assessment and counseling. This

practice bundle could also be implemented with patients receiving treatment for esophageal or advanced stage lung cancer.

JL614

Oncology Advanced Practice Provider Orientation Program

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Purpose: Advanced Practice Providers (APPs) play a growing and important role in delivering cancer care at NYU Perlmutter Cancer Center. A significant number of new APP graduates are hired, some with oncology experience, most without. An informal survey of major NYC academic healthcare centers exposed none provide formal programs for new-hire APPs into oncology services, and most graduate programs do not have a dedicated oncology curriculum. This results in graduates entering practice with little clinical knowledge of caring for this sensitive population. Ordering anticancer agents (ACAs) is part of NYU Oncology APPs Delineation of Privileges. Institute for Safe Medication Practices includes ACAs as high-alert medications due to potential to cause harm if incorrectly prescribed. To reduce potential risks, NYU previously instituted a mandatory 8-hour ACA Prescriber Course. Since implementation, it became evident new APPs would benefit from additional educational support to develop oncology knowledge. A 3-day comprehensive oncology care course was generated to provide formal oncology training, preparing newly hired APPs in their role as an independent provider of cancer care at NYU. **Methods:** An Advanced Practice recruitment and retention committee was established to uphold new and current staff satisfaction. The first committee project was creation of an oncology learning experience to supplement established orientation. Time and curriculum decided upon by committee chair and key members encompassed surgical, radiation, medical, and supportive oncology—areas newly hired APPs encounter. Faculty speakers felt to be experts in their respective fields were recruited, including management, physicians, APPs, nurses, pharmacists and geneticists. APPs hired within 6 months, both experienced and novice, were invited. Participants and speakers were invited via email. The course was held January 24-26, 2018, 8AM to 4PM. Seventeen newly hired APPs attended. **Results:** An anonymous six-question evaluation was given on the final day. 15 of 17 attendees completed evaluations. 14 reported handouts were very helpful during the course and for future reference (1 reported somewhat). 14 reported lecturers were very knowledgeable on subject matter (1 reported somewhat). 4 reported pace was somewhat sufficient (1 reported not sufficient for amount discussed, 10 were very satisfied). All 15 reported course met expectations, increased preparedness to perform their role and material content was evidence based and relevant to caring for oncology patients. **Conclusions:** The course provided overview of surgical, medical and radiation oncology, pathology, radiology and palliative care and provided opportunity for new APPs to meet expert providers in each subspecialty and familiarize with available resources. The customized course provided focused, outcomes-based training, leading enhanced competence providing high-quality cancer care and allowing providers to practice to top of scope. Our program was an innovative solution to assist skills development and knowledge new APPs need to succeed, as lack of specialty training is as an obstacle they face. Our next focus is constructing a similar program offering oncology rotations to NP students with strong oncology interest, ultimately allowing transformation to new hire at NYU. We believe transitioning to comprehensive orientation and immersion programs affords us the opportunity to ensure NYU remains on the trajectory of growth amidst the rapidly changing healthcare landscape.

JL615

Oncology Advanced Practice Provider Tumor Board

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Background: Common challenges exist among oncology Advanced Practice Providers (APPs), including lacking an oncology-specific educational background and access to collaboration with

other specialties. Literature review revealed that collaborative practice produces positive outcomes for patients, providers, and health care systems. Collaboration leads to integrated interventions through combining individual strengths and facilitates implementation of evidence-based practice, which is essential to an ever-changing field of oncology. Multidisciplinary tumor boards illustrate collaborative development in diagnosis and treatment plans, and improves team dynamics, communication, patient satisfaction, and clinical outcomes. Thus, an APP tumor board can provide an avenue to bring together APPs from across the division to facilitate collaboration and provide an opportunity to learn from colleagues through shared learning. **Design:** An APP tumor board is designed to involve APPs across inpatient and ambulatory services, including medical oncology, surgical oncology, radiation oncology, palliative care, and interventional radiology. Cases discussed are initiated by APPs with the goal of receiving feedback to better manage the patient and/or case. Topics focus on issues relevant to APP practice, including lessons learned and, disease and symptom management. Program specifics include monthly 1-hour meetings involving 4-6 cases collected the week prior; oversight is provided by a group leader while members present their case and relevant information for discussion. CE credit is provided for participation. **Results:** Pre-implementation survey was performed focusing on current APP collaboration, prior experience, participation in multidisciplinary tumor boards, and comfort level of presenting cases. Results showed all APPs surveyed collaborated with other APPs in less than 50% of the cases; most APPs felt inadequate in keeping current on advancements in oncology. One hundred percent supported an avenue to discuss cases with fellow APPs. Further, 88% reported not speaking up in tumor board settings and 100% felt there were topics currently not covered in tumor board that they would like to discuss. Six-month post-survey results indicated 80% reported an increase in collaboration. Sixty percent reported increasing comfort level asking others for assistance and felt content the APP tumor board applied to their practice as compared to 20% in other tumor boards. Sixty-six percent reported higher comfort levels in taking care of patients outside their specialty. Seventy percent reported making changes to patient care based on discussion, 60% incorporate more evidence-based practice into treatment, and 80% have increased differential diagnoses. Barriers identified included lack of physician or leadership support, location/time of meeting, and busy clinic schedules. **Conclusions:** The APP tumor board has given oncology APPs an avenue to share patient cases and learn from each other in a controlled, safe setting. Discussion has improved adherence to evidence-based practice and positively impacted collaboration. APP tumor board was more relevant to APP practice than other tumor board settings and supported new ideas for patient care. **Recommendations:** Future recommendations include increasing participation of colleagues and increasing support from physicians and clinic leadership. With growth, we recommend implementing APP tumor boards at each clinical site to increase access, consider initiating disease-focused APP tumor boards, and offer participation via teleconferencing.

JL616

Reducing Central Line Associated Bloodstream Infections in Hospitalized Patients With Cancer

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Background: Central line-associated bloodstream infections (CLABSIs) result in thousands of deaths each year and billions of dollars in added costs to the US healthcare system, yet these infections are preventable. Infection is a common problem in patients who have cancer, or who have suppressed immune systems due to cancer treatment with radiation and/or chemotherapy. These patients are at a greater risk for developing an intravascular device-related infection, which can lead to sepsis and even death. The medical oncology inpatient unit had a quarterly standardized infection ratio (SIR) over 1.0 for the 6 quarters from Quarter 1 2015 to Quarter 2 2016. A SIR over 1.0 reflects more infections than anticipated using risk-adjusted data. The CLABSI rate on the medical oncology unit was among the highest in the hospital, at 2.31, when the project was initiated. **Method:** Work was standardized by focusing on five areas of perceived need: (1) Patient education

surrounding increased risk for infection, symptoms to report to their doctor, and how to prevent infections; (2) Adjusting supply levels to meet daily use of central line supplies; (3) Purchasing a neutral pressure connector for valved peripherally inserted central catheter hubs (no connector was attached to the hub, which allowed for direct catheter exposure when changing tubing or drawing lab specimens); (4) Staff education, including development of a hands-on show and tell box with all central line equipment, and standardization of tubing and dressing change dates and documentation, with updates to the standard operational policies; (5) Providing chlorhexidine baths for all patients with central lines once daily. **Results:** The implementation of the action plan occurred between October 2016 and December 2017. There were no reported central line infections for 3 of the 6 quarters during the implementation, with the SIR dropping to 0.62 for Quarter 1 2018. **Conclusion:** By raising the awareness of patients and staff to the importance of preventing central line-associated bloodstream infections, and by ensuring equipment was available, stocked, and being used correctly, the number of infections dropped significantly. The Clinical Nurse Specialist plays a significant role as expert clinician, consultant, and change-agent in the prevention of hospital acquired infections, leading to cost savings for the organization and best outcomes for the patients.

JL617

OUTSTANDING POSTER AWARD

Strategies Supporting Reduced Hospitalization Rates in a Successful OCM Practice: The Pivotal Role of the Advanced Practice Provider

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Background: The purpose of the Oncology Care Model (OCM) is to improve quality and reduce cost through practice transformation. A foundational tenant is reducing avoidable ER visits and hospitalizations. In anticipation of OCM, Oncology Hematology Care's quality team reevaluated workflows and communication touchpoints and instituted a campaign designed to prioritize shared decision-making and supportive care intended to result in ER and hospitalization reductions. Reduction of unplanned admissions requires a multifaceted approach, including increased care coordination, standardized pathways, and urgent care tactics, with the Advanced Practice Provider (APP) at the core of this transformation. **Methods:** *Actions Prior to OCM*: (1) Established phone triage unit staffed with 2 nurses; (2) Purchased and implemented triage pathways: 37 symptom, 29 follow-up pathways (modified COME HOME, McAneny); (3) Instituted APP-led weekend urgent care clinic; (4) Physicians were encouraged to utilize weekend clinic and next-day APP visits instead of sending patients to the ER if appropriate. *Year One of OCM*: (1) Increased APP staffing 2 FTEs; (2) Instituted 2 blocked time-slots per APP at all offices for same-day triaged appointments, to minimize schedule disruptions; (3) Created 2-hour education sessions provided by nurse navigators and led by APPs prior to start of all new treatments; (4) Created a 13 element IOM Care Plan designed to increase shared-decision making with the patient, completed by the APP. Examples of Care Plan components: prognosis, treatment regimen, treatment benefits and harm, advance directives; (5) Increased triage staffing 2 FTEs to increase symptom management calls; (6) Triage instituted proactive symptom follow-up calls and ER follow-up calls to help circumvent emergent re-admissions; (7) Initiated "Call Us Early – Call Us First" campaign. Incorporated verbal and/or written instructions at patient touch points emphasizing patient's responsibility to call before going to the ER. This instruction was initiated during their education visit with the APP. **Results:** Based on Chronic Condition Warehouse data provided by CMS, acute care admissions rate decreased by 16%. Readmissions (4.9 vs. 5.6/100 pts), ER utilization (17 vs. 18.6/100 pts), and observation stays (2.7 vs. 3.6/100 pts) remained below risk-adjusted national averages. Reported Medicare savings were nearly $798,000 inpatient cost per quarter over 1,600 patients. Phone triage 2017 data showed 9,841 total symptoms calls were managed. Of those, 2,476 same-day visits were scheduled in office, mostly with an APP. These visits resulted in 338 ER saves. **Conclusions:** Implementing a comprehensive care team approach

centered on APPs, we were able to decrease hospital admissions by 16% without an influx in ER utilization. This feasible, scalable, and reproducible model was a combination of instituting teaching visits, a "Call Us First" campaign, and emphasizing shared-decision making between APP and patient. Careful schedule planning has provided patients a means to see a provider promptly and with minimal disruption to clinic workflow by seeing the APP for acute visits, avoiding the ER. **Implications:** Building on the success of these APP-centric patient care improvements, we continue to expand APP services, including genetic risk assessment, in-office procedures, and in the near future, palliative care.

JL618

Study on Prevention of PEG-asparaginase Associated Toxicities

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Background: Asparaginase is a vital component of the treatment regimen for acute lymphoblastic leukemia (ALL). Early and sustained asparagine depletion, at least up to the first 30 weeks of therapy is crucial. Despite the widespread success of PEG-asparaginase, toxicities occur in 20%-30% of patients. The ability to complete the prescribed asparaginase treatment schedule is associated with improved outcomes in patients with ALL. The reported incidence of adverse effects in the pediatric population is 20%-30%. **Methods:** A retrospective analysis was conducted to evaluate patients receiving PEG-asparaginase from September 1, 2014 through July 30, 2017. The aim of this study was to evaluate whether a new infusion technique of PEG-asparaginase administration reduced the incidence of CTCAE grade adverse drug reactions (ADRs). The primary outcome was the incidence of ADRs with two different methods of PEG-asparaginase infusion. The Chi-squared test was used to evaluate statistical significance. **Results:** A total of 58 patients were treated with PEG-asparaginase, of which 37 patients received PEG-asparaginase as IVPB alone and 21 patients were given PEG-asparaginase through the tubing of a freely infusing solution of NS. ADRs occurred in 18.6% of patients receiving PEG-asparaginase IVPB alone and in 1.6% of patients receiving it through a running IV line (p = .0072). In the IVPB group, four patients experienced grade 3 hypersensitivity during consolidation, one during induction, and one during delayed intensification. Of the 21 patients receiving PEG through a running IV line, only one patient experienced a reaction. Increased antiemetic use was noted in 18 of 104 IVPB doses (18.4%) compared to only 1 of 64 doses administered through a running IV line (1.6%). **Conclusions:** This retrospective analysis demonstrated a statistically and clinically significant reduced rate of adverse events in patients receiving PEG-asparaginase with a normal saline infusion compared to those receiving it without fluids. The benefit of such observations includes the significant improvement in quality of life as well as significant cost savings as noted in the reduction in the need to use the more expensive alternative Erwinia asparaginase.

JL619

Successes and Challenges of a High-Risk Breast Clinic in a Rural Healthcare System in South Dakota

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Background: According to the American Cancer Society, there will be 268,670 new breast cancer diagnoses and 41,400 deaths from the disease in the United States in 2018. In South Dakota, approximately 700 new cases will be diagnosed and 105 will die. Some women are at higher risk for breast cancer due to factors such as family history/genetics, reproductive history, breast density, and others. Utilizing a high-risk breast clinic to evaluate women for elevated risk is one way to identify those who may benefit from early or increased breast screening, potentially leading to early diagnosis of cancer or prophylactic measures to reduce risk. The successes and challenges of one such clinic, the Edith Sanford Breast Specialty Clinic (ESBSC), are highlighted here. A team of Nurse Practitioners, Nurses, and Genetic Counselors run this clinic, with oversight provided by a Breast Surgeon in Sioux Falls, South Dakota, at a large, rural healthcare system. **Methods:** ESBSC receives patient referrals through a

PCP, self-referral, OBGYN, or through the Athena Breast Health Network Research Project. During the initial consultation, the patient meets with a Nurse Practitioner and a Genetic Counselor. An in-depth family history and pedigree is completed by a Genetic Counselor, who also calculates an International Breast Cancer Intervention Study (IBIS) score. The Nurse Practitioner then performs a physical and clinical breast exam and provides information on risk factors, risk factor modification, and self-breast awareness. Patients who receive an IBIS score greater than or equal to 20%, have additional or early imaging recommended based on National Comprehensive Cancer Network (NCCN) guidelines. The patient may also be referred to Medical Oncology, Surgery, and Gynecology to discuss chemoprevention, prophylactic mastectomy/oophorectomy. The patient then follows with the ESBSC yearly for review of imaging and updates to patient/family history. **Results:** Over a 2-year period, the ESBSC team saw 475 patients for initial consultation. 324 of these received an IBIS score of greater than or equal to 20%. Of these 324 patients, breast MRI was ordered for 313, however, only 132 (42%) completed the recommended imaging and only 109 (34%) returned for recommended annual follow-up. 11 of the 324 patients elected to have prophylactic mastectomy. Three patients received a breast cancer diagnosis through the recommended screening imaging. **Conclusions:** The ESBSC has been well received and supported by providers, and referrals are plentiful. However, patient follow-up with recommended imaging and office visits is challenging. The Nurse Practitioner team and Genetic Counselors have been able to successfully maintain the clinic and provide appropriate patient education and related imaging orders. Several patients have taken steps to reduce their risk and early breast cancers have been identified. **Recommendations:** Research is needed into the low compliance with annual follow-up and recommended breast imaging. Our facility is developing a questionnaire to hopefully provide some answers. Cost of breast MRI is likely contributory and potential sources for funding should be sought. Development of a referral tool for providers may help to provide more accuracy in the referral process.

JL620

Survivorship Care Plans: How Are We Doing?

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Background: The COC and NCCN have required survivorship care plan development and distribution to all patients in accredited cancer programs (Standard 3.3). The goal of these plans are to guide and coordinate care between oncologists and primary care providers (PCPs; IOM, 2005). Well over a year into requirement, it is not clear if these goals are being met. This quality improvement project aims to establish how well the plans are being received in the community. **Project Methods:** A convenience survey of 30 patients was completed. These patients had care plans hand delivered to them, sent to their PCPs via the electronic EPIC system, and printed and mailed to their providers with an attached letter. The letter was included to establish communication between care providers. Two weeks later, a follow up call was placed to PCPs to discuss the plans. Data were collected and analyzed using Qualtrics. **Results:** Thirty patient charts were reviewed. All 30 PCPs received an electronic copy, a letter and copy of the survivorship plan by mail. The number of respondents who could recall seeing the care plans was dismal. Further, actual use of the plan in documentation was much worse. Primary care providers did respond positively when asked if they felt comfortable assuming the care of their patients. They also reported usefulness of care plans. The following are the data analysis: 1. Did you receive a oncology survivorship care plan? 46.6% responded yes, 13.4% responded maybe, 30% responded no, and 10% responded they did not. 2. Did you receive a letter or a phone call in addition to the survivorship care plan? 20.6% responded yes, 24.1% responded maybe, 48.2% responded no and 6.9% responded no additional follow up. 3. Is the care plan is easy to follow? 20% yes, 0% responded no, 23.3% responded somewhat, 56.7% responded they had no opinion as they did not remember a care plan. 4. Do you feel prepared to care of your patient after receiving the care plan? 30% responded yes, 0% responded no, 20% responded somewhat and 50 % responded they had no opinion as they did not remember seeing the care plan. **Conclusions:** Despite three modes of communication of survivorship care plans, a communication gap remains between

oncologists and PCPs. **Recommendations:** Suggestions for closing this gap include making the plans more visible in EPIC. Further, phone calls to PCPs at the time of care transition to review the plan would be beneficial. Respondents were interested in the information and reported they felt it would be useful in the care of their patient. Finally, research has suggested lack of resources has led to an over stressed primary care environment. This can impede care for oncology patients. A group of uniquely trained onco-primary care advanced practice providers could help provide access to care for this heterogeneous population of patients. **References:** American College of Surgeons: Cancer Program Standards: Ensuring Patient Centered Care. 2016.ed. www.facs.org/quality%20programs/cancer/coc/standards. Institute of Medicine. (2005). From Cancer Patient to Cancer Survivor: Lost in Transition.

JL621

The Changing Landscape of Oncology Drug Development and the Role of the APP

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Background: Phase I clinical trials represent a critical step in oncology drug development that may lead to novel treatment options. The US Food and Drug Administration (FDA) has granted breakthrough-therapy approval status for a few drugs over the past several years using phase I trial data, including pembrolizumab for refractory melanoma and PD-L1 high mNSCLC. Some clinicians perceive all phase I trials to be a last resort treatment and are concerned there may be little potential benefit. With the influx of trials investigating molecularly targeted therapies and immunotherapies, historical phase I response rates are improving leading to increased benefit for some patients. In the Phase I Program at the Winship Cancer Institute (WCI) of Emory University, the Advanced Practice Provider (APP) role is central to the multidisciplinary phase I consult clinic, leading discussions about possible clinical trial options and educating patients and caregivers. APPs play a critical role in patient-focused discussion of treatment options, and literature has shown that APPs are willing to recommend and discuss clinical trials but need more education about the benefits of clinical trials. It is imperative that APPs are aware of the changing landscape of drug development to better educate and advise patients. **Methods:** A retrospective analysis of 185 patients with solid tumor malignancies enrolled on phase I trials conducted by the Phase I Clinical Trial group at WCI was performed. Response rates were assessed for patients enrolled from January 2016–May 2018 on 31 phase I trials, including trials with single-agent investigational drugs as well as trials combining investigational drugs with immunotherapy, chemotherapy, or targeted therapy. **Findings:** Objective responses were seen in 19% (n = 36) of patients, with 5% (n = 10) achieving complete response and 14% (n = 26) achieving partial response. 34% (n = 62) of patients achieved stable disease and 47% (n = 87) had progressive disease. **Summary:** Historical response rates on phase I trials in the 1990's and early 2000's have been reported to be as low as 5%-10%. With increasing objective response and disease stabilization rates, phase I trials may represent a beneficial treatment option for some patients. There is a need to communicate that to clinicians, patients and caregivers as misconceptions about trial participation may exist. **Implications:** With an estimated 1.7 million new cancer cases in the US in 2018 and only 5% of cancer patients participating in trials, there is an ongoing need for increased trial enrollment particularly in minority populations. The APP is poised to play a significant role in treatment choice discussions as well as assessing patients' trial candidacy and collaborating with multidisciplinary colleagues to provide patients with information about phase I trial options as clinically appropriate.

JL622

West Virginia Lung Survivorship Project Bridge to Good Living: Thriving Beyond Lung Cancer

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Background: Lung cancer kills more West Virginians than breast, colorectal, and prostate cancer combined. 50% of those diagnosed in WV

are diagnosed at stage IV. The aim of this project was to develop and implement a comprehensive model survivorship program for lung cancer patients receiving curative treatment in hopes of identifying unmet needs at the time of treatment completion in order to better care for the whole patient, not only their lung cancer. **Methods:** This program was awarded a grant by the Bristol-Myers Squibb Foundation's Bridging Cancer Care Program. Patients are identified for the program by the advanced practice professional with the assistance of the primary oncology team. The patients are then surveyed by the program coordinator via telephone before coming to the clinic appointment. This information is disseminated to the multidisciplinary team. Each team member, including the advanced practice professional, physical therapist, occupational therapist, dietitian, social worker, and supportive care physician then meet the patient in person on the day of the clinic appointment. A comprehensive survivorship care plan is completed for the patient at the visit with the assistance of each team member. This includes the basic treatment summary required by Commission on Cancer guidelines and adds 26 specific questions about quality of life indicators in lung cancer survivors. The advanced practice professional leads the team in completing the treatment plan and disseminating information to the patients. The plan is then forwarded to the patient's primary care provider and the primary oncology team. Patients are then surveyed at time of 3-6 month follow-up visit to ensure that any past or current needs are being met. **Results:** This is an ongoing project that has evaluated 43 patients at three sites across the state of West Virginia. The program has identified 335 reported unmet needs, and 83 referrals for ancillary services have been completed. Every patient has identified at least one unmet need. The sites have been opened on a rolling basis, and we expected that patient recruitment numbers will continue to grow with increase in sites. **Conclusions:** With this data, it has been proven that lung cancer patients have many needs after completing treatment that may not be addressed by the primary oncology team, whether because the patient does not feel the needs are relevant to the provider, the provider has limited time, or patient is lost to follow-up. **Recommendations:** The advanced practice provider is often seen as a central figure in survivorship clinics. This program expands the role of the advanced practice provider to include team manager. It also addresses a cancer that is not frequently talked about in survivorship care: lung cancer. With the approval of immunotherapy in stage III and possibly earlier stages, lung cancer survivorship will likely increase. A more comprehensive survivorship model will be necessary given the many comorbid conditions these patients have at diagnosis.