Collaboration for Enhanced Patient Care within the Medical-Legal Partnership (C901)

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Objectives

- Describe a medical-legal partnership.
- Explain how a medical-legal partnership can benefit a patient.
- Identify a role for communication between the medical and legal teams within a medical-legal partnership

Background: Medical-legal partnerships are important tools to help providers address legal and social issues that affect patient health. The availability of a legal team to address these issues in a timely manner can be particularly important in relieving the distress of patients with serious illness. Consent can also be obtained for collaboration between the medical and legal teams to provide optimal care for the patient.

Case Description: A 46-year-old woman was diagnosed with metastatic cholangiocarcinoma. The palliative care team was involved to help manage her pain and also learned that she had eight children, four of them minors. The medical-legal partnership was invoked to set up guardianship for the children, only one of whom was the biological child of the patient's husband. As her illness progressed, the patient found herself in conflict with her husband. The medical-legal partnership helped her find new housing and advocated for more visitation with her youngest child given the serious nature of her illness. With multiple ongoing legal issues including family offense, guardianship and custody, the lawyer asked the patient's consent to discuss her case with her medical team. The palliative care physician was able to provide insight into the patient's prognosis and help the lawyer prioritize the multiple legal issues. The standby guardianship was expedited and the palliative care social worker recommended choosing a secondary agent, as the identified individual had not been very involved in the patient's care.

Conclusion: Patients may face distressing legal and social issues near the end of life. Palliative care teams should advocate for the development of a medical-legal partnership at their institution and connect vulnerable patients with this resource. We also identified an important role for communication between the lawyer and medical providers within this partnership to provide individualized care for the patient.

Laryngotracheal Separation as a Palliative Approach to Prevent Recurrent Aspiration in Bulbar Amyotrophic Lateral Sclerosis (C902)

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Objectives

- Describe current symptom management in bulbar amyotrophic lateral sclerosis (ALS).
- Describe laryngotracheal separation (LTS) and its utilization in treating recurrent aspiration in nonverbal patients with motor impairment.
- Identify benefits of LTS as a palliative approach for prevention of aspiration in nonverbal patients with bulbar ALS.

Background: Bulbar amyotrophic lateral sclerosis (ALS) manifests as progressive facial weakness resulting in loss of speech and ability to swallow. Due to inability to safely clear oral secretions, patients with bulbar ALS experience recurrent aspiration pneumonia or acute life-threatening airway obstruction. Utilized in nonverbal individuals with severe congenital motor impairment, laryngotracheal separation (LTS) has been shown to decrease frequency of deep airway suctioning and incidence of pneumonia.

Case Description: A 63 year old female with known bulbar ALS was admitted for recurrent aspiration pneumonia. Through progression of her disease, she had lost the ability to speak or swallow two years prior to this admission. All enteral nutrition was given via long-standing gastrostomy tube. Cognitively intact, she was able to sense the passage of large oral secretions into her airway, which triggered an acute sensation of “drowning”. Although anticholinergic pharmacotherapy decreased the volume of oral secretions, medication had minimal clinical effect on the frequency of aspiration events. During hospitalization, she experienced an acute hypoxic event due to aspiration of thick secretions, which resolved with deep suctioning of the upper airway. Given the patient’s previous permanent loss of speech, laryngotracheal separation with tracheostomy was recommended to prevent future aspiration events. The patient tolerated the procedure without complication and was able to be weaned from ventilator support prior to hospital discharge.

Conclusion: Laryngotracheal separation is a novel method for aggressive symptom management in patients with bulbar ALS. Discussion of this intervention should be initiated at diagnosis and timing of the procedure should occur either after the patient has lost the ability for speech or earlier with recurrent life-threatening aspiration events. Completion of LTS earlier in the disease course can improve quality of life by eliminating aspiration events and allowing patients to enjoy oral intake for comfort without the risk of airway compromise.

From Constipation to Ischemic Colitis (C903)

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Objectives

- Discuss options for opiate-induced bowel dysfunction.
- Identify rare complications of constipation.
- Review risks and benefits of newer medications for constipation management.

Background: Constipation is a persistent side effect of opiate usage and can sometimes lead to high morbidity complications, such as ischemic colitis. Prophylaxis is critical when managing patients on acute or chronic opiates.

Case Description: 52-year-old white female with history of Ehlers-Danlos syndrome, lumbar stenosis with radiculopathy, anxiety, fibromyalgia, and constipation presented with diarrhea. She is on high-doses of opiates and normally has issues with constipation, refractory to multiple laxatives. Two days prior to admission she was prescribed lubiprostone but still had issues with constipation and she took extra doses of her bowel regimen, then subsequently developed diarrhea with nausea and vomiting. On admission she had mild acute kidney injury and CT abdomen/pelvis without contrast reveals colitis. Colonoscopy revealed what appeared to be acute presentation of inflammatory bowel disease suggestive of severe ulcerative pancolitis, infectious colitis seemed less likely. However, pathology which was subsequently confirmed at Mayo was consistent with acute ischemic colitis. CTA abdomen and pelvis showed no hemodynamically significant stenosis or occlusion and aorta was of normal diameter. Subsequent colonoscopy 4 months later revealed complete resolution of ischemic colitis.

Conclusion: Ehlers-Danlos does have a higher incidence of ischemic colitis usually due to vascular malformations. There is also an increased incidence of inflammatory bowel disease. There is a case report of lubiprostone induced ischemic colitis however the patient had not started that at the time of her admission. Constipation causes increased intraluminal pressure that reduces blood flow, predisposing the patient to regional colonic wall ischemia. Relative risk for ischemic colitis is 2.78 times higher for patients with constipation. Constipation is more prevalent in younger patients with ischemic colitis. Prevention of opiate-induced bowel dysfunction particularly in patients with diseases with increased prevalence of constipation is critical. However, newer medications for management of constipation do carry rare but serious risks of complications.

An Atypical Cause of Intractable Nausea in Pancreatic Cancer (C904)

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Objectives

- Review the common causes of nausea.
- Identify esophageal spasm as a cause of nausea.
- Discuss the benefits of a systematic history and examination in the management of nausea.
- Review newer or unusual antiemetic agents used in this case.

Background: Nausea is a common symptom managed in palliative care patients. It can usually be attributed one of five causes: vestibular, obstipation, motility, inflammation/infection, and toxins. History and exam are critical in determining the cause of nausea which then directs treatment toward the causative etiology. Sometimes, however, nausea does not fit neatly within the causes listed above.

Case Description: 77-year-old white male with Stage IB, T2 N0 M0 metastatic pancreatic adenocarcinoma with past medical history of severe hearing impairment, heart disease, and chronic obstructive pulmonary disease. He presented with intractable nausea and vomiting in spite of treatment with ondansetron, promethazine, prochlorperazine, and metoclopramide. His nausea was possibly mildly alleviated by lorazepam. He described his nausea and vomiting as being precipitated by hiccoughs that occur after drinking or eating small amounts which then caused substernal pain, regurgitation, and dyspnea. On admission, CT of the abdomen with contrast showed small hypodense lesion body of the pancreas consistent with known malignancy and new grossly abnormal appearance of the gastric fundus either due to intramural gastric wall abscess/fluid collection post biopsy or developing gastric wall pseudocyst. He was started on chlorpromazine 25 mg IV Q6H PRN hiccoughs which he used twice a day. No change in nausea with olanzapine and haloperidol. One time dose of fosaprepitant did alleviate refluxing of food or drink after eating for about 24 hours. He still had hiccoughs, pain, and dyspnea. Suspecting distal esophageal spasm, he was started on diltiazem 30 mg PO Q6H. The combination of diltiazem and chlorpromazine alleviated his nausea and he was discharged to home hospice.

Conclusion: A systematic approach to history and examination in nausea assessment is vital for optimizing management in advanced, progressive illness. Minimizing radiological testing and avoiding arbitrary selection of antiemetics is also important to maximize patient quality of life and comfort.

Complex Pain, Palliative Care Team, and a Hockey Player Walk into a Bar: When the Step-Wise Approach Leads You Off a Cliff (C905)

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Objectives

- Identify alternative approaches to optimal care when the classic step-wise formula for complex total pain doesn't work.
- Discuss transitioning complex inpatient treatment approaches to a feasible discharge plan home.
- Discuss the successful use of lidocaine for refractory pain syndromes and conversion to mexiletine.

Background: Palliative care (PC) teams often use step-wise approaches in their assessment and treatment of complex pain. When these are not successful and complicated by complex psychosocial and family dynamics, PC teams are left with refractory cases that require creative thinking. This case highlights the struggle PC teams face when interventions finally work and the transition home.

Case Description: 43-year-old female followed by PC with metastatic cervical cancer, after radiation therapy, on immunotherapy with new cauda equina syndrome and uncontrolled physical and emotional pain. Her husband, a former hockey player was devoted to his wife, but an intense and angry presence in the room that limited assessments and delayed interventions. The PC team, a fellow, attending physician, psychiatrist, pharmacist and nurse practitioner started a hydromorphone PCA (MEDD=1222 mg) and methadone with continued report of severe pain. Assuming potential delayed pain relief from radiation, ketamine was initiated and titrated. Despite several days of these interventions high opioid use persisted. Oncology determined immunotherapy ineffective and recommended hospice but her pain remained out of control. PC instituted a cross-taper from ketamine to lidocaine infusion. Total pain symptoms improved, with decrease in MEDD to 540. The lidocaine dose was increased, methadone continued and the hydromorphone PCA converted to oral. Her husband began to trust PC team, leading to improved assessments and psychosocial interventions for both of them. Discharge home remained the goal. Lidocaine infusion was converted to oral mexiletine, without any conversion guidance from the literature, in preparation for discharge home.

Conclusion: She successfully made it home on methadone, hydromorphone, and mexiletine with her total pain controlled after a six-hour drive across state lines and received home hospice services. Creative, full contact team, approaches are needed for these challenging cases, at times going where there is no literature to support the jump off a cliff.

An Interdisciplinary Approach to the Management of Refractory Constipation in the Setting of Neoplasm-associated Rectovaginal Fistula (C906)

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Objectives

- Discuss the epidemiology of neoplasm-associated rectovaginal fistulae
- Delineate a step-wise interdisciplinary approach for management of refractory constipation in the setting of neoplasm-associated rectovaginal fistula

Background: Causes of rectovaginal fistulae include inflammatory diseases, previous obstetrical or surgical trauma, and neoplasm. To our knowledge, there are no studies or case reports outlining management of refractory constipation in the setting of neoplasm-associated rectovaginal fistula.

Case Description: A 62 year-old female with metastatic rectal adenocarcinoma with associated rectovaginal fistula was admitted for acute on chronic abdominal pain and nausea/vomiting with increasing opioid requirements. In the preceding weeks she had experienced small volume liquid and pasty stools evacuated via the vaginal orifice. Ongoing constipation was thought to be a contributing factor to her severe abdominal pain and was thought to be of multifactorial etiology, including opioid-induced and obstruction.

A step-wise approach was utilized to manage this refractory constipation. This approach involved pharmacologic management, procedure-based management, and interventional palliation. First, a combination of scheduled osmotic and stimulant laxatives was prescribed, which resulted in minimal effect in obtaining laxation. Subsequently, both gastroenterology and colorectal surgery consultations were completed to consider endoscopic stenting or surgical repair respectively. Unfortunately neither were possible given lack of tissue integrity. Third, interventional radiology was consulted to evaluate for nerve block in an effort to decrease opioid requirements.

Throughout these efforts, her clinical condition declined. The above steps were taken in tandem with palliative care involvement for symptom management and ongoing goals of care discussion. In the context of these discussions, the patient ultimately transitioned to a comfort plan of care and underwent hypogastric nerve ablation performed by interventional radiology along with optimization of pharmacologic strategies to promote comfort prior to transfer to a residential hospice facility.

Conclusion: This case highlights unique challenges in managing refractory constipation in the setting of neoplasm-associated rectovaginal fistulae and a step-wise approach that can be utilized to manage both the underlying cause of constipation while simultaneously ensuring palliation.

Clinical Practice Guidelines Improve LVAD Deactivation In The Hospital (C907)

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Objectives

- Describe inpatient guidelines to care for LVAD patients during deactivation and EOL
- Identify specific challenges with inpatient LVAD deactivation based on case series following 2 years of experience at Washington Hospital Center

Background: Left ventricular assist device used as destination therapy (LVAD-DT) has been shown to increase survival, quality of life and functional status in select patients with stage D heart failure. However, when burdens of disease or therapy outweigh benefits and patients or surrogates consider quality of life no longer optimal, palliative care (PC) teams should support effective device deactivation through best end-of-life practices. How can we collaborate with Advanced Heart Failure teams to improve end-of-life care for the rapidly growing population of patients with LVAD-DT?

Case Description: Mr. AW was a 62 year old with a history of non-ischemic cardiomyopathy (ejection fraction 10%) and refractory symptomatic ventricular tachycardia (VT) who received LVAD-DT implantation. A prolonged postoperative course was complicated by hyperactive delirium, device driveline infection, right ventricular failure, multiple episodes of hypoxic respiratory failure requiring invasive mechanical ventilation, and metabolic encephalopathy. After a series of PC-initiated meetings, AW's family decided to deactivate the LVAD.
In our hospital, LVAD deactivation follows clinical practice guidelines (CPGs) established collaboratively by PC, Advanced Heart Failures, and Ethics teams to assure patient comfort and provide support to both family and unit staff. CPGs include specific recommendations for symptom management, spiritual care referrals, and clinical documentation. In this case presentation, we describe Mr. AW's LVAD deactivation and, along with a 6-case series of LVAD deactivations at our institution, frame in the context of our guideline development. By implementing such CPGs, we helped assure the dying experience of Mr. AW and others reflects best multidisciplinary holistic care and supports non-PC clinicians.

Conclusion: Practical LVAD deactivation guidelines for inpatient populations provide support to multidisciplinary team involved in the process and are essential to facilitate patient comfort and family support at the end of life.

Superior Hypogastric Nerve Block as a Novel Treatment of Pain Related to Hemorrhagic Cystitis in Children Undergoing Bone Marrow Transplantation (C908)

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Objectives

- Acknowledge the limitations of conventional analgesics in the treatment of visceral pain due to cancer or cancer-directed treatment
- Recognize the safety and efficacy of the superior hypogastric plexus nerve block for the treatment of severe pain due to hemorrhagic cystitis

Background: Hemorrhagic cystitis (HC) is a common complication of bone marrow transplantation (BMT) and a significant source of morbidity. Pain due to HC generally responds poorly to opiates, and their use can worsen symptoms by causing urinary retention. The superior hypogastric plexus nerve block has been utilized in adults to reduce pain associated with HC. This case provides an example of its use in a pediatric patient undergoing BMT.

Case Description: An 11-year old female patient underwent a matched unrelated donor (MUD) BMT for secondary acute myeloid leukemia (AML). Post transplant, she developed severe hemorrhagic cystitis consequent to BK virus. The patient experienced intermittent, severe pain with passage of large clots through the urethra. During these episodes, she rated her pain as 8 to 10 on a 10-point scale. She was prescribed a number of treatments that included oxybutynin, solifenacin, gabapentin, ketamine, valium, dexmedetomidine, morphine, hydromorphone, and methadone. There was minimal relief from these interventions, and the unpredictable nature of her pain created a challenge for dose titration. The Palliative Care service recommended a superior hypogastric plexus nerve block, which has been utilized in adults with intractable pelvic pain. The procedure was performed by Interventional Radiology under fluoroscopic guidance, using 40mg of triamcinolone and 7 ml of 0.25% bupivacaine. The patient had significant improvement in pain following the procedure, with a decrease from 8-10/10 to 0-3/10 on a numeric pain scale over the next 24 hours. Dexmedetomidine was weaned, allowing her to be transferred from the PICU to the BMT unit. There were no adverse events associated with the procedure despite neutropenia and transfusion-dependent thrombocytopenia.

Conclusion: The superior hypogastric plexus nerve block is a novel approach to treating pain due to HC. It is effective, opiate-sparing, and can be performed safely in patients following BMT, even prior to full marrow recovery.

Is the Diagnosis of a New Venous Thromboembolism Akin to Disease Progression as a Prognostic Marker in Cancer Patients Receiving Chemotherapy? (C909)

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Objectives

- The provider will identify occurrence of new venous thromboembolism after initiation of chemotherapy as a modifying prognostic factor.
- The provider will recognize venous thromboembolism as a possible side effect of conventional chemotherapies.

Background: Venous thromboembolism (VTE) is easily recognized as a marker of advanced disease and a poor prognostic factor when identified at the time of diagnosis of cancer. Less recognized is the prognostic value of new VTE developing during cancer therapy. We describe the case of a patient with advanced cancer but excellent functional status, in whom the the diagnosis of a new VTE was not recognized as evidence of disease progression. This led to missed opportunities to address goals of care and mortality risk in a timely fashion.

Case Description: A 73 year-old man with pT3N1 pancreatic cancer status post Whipple procedure had been receiving adjuvant chemotherapy in the setting of a high functional status (ECOG 0). He presents to the emergency department for flank abdominal pain. Radiologic imaging reveals nephrolithiasis as the source of pain but incidentally reveals pulmonary embolisms, for which he is started on a direct oral anticoagulant. The disease is also noted to progress, leading to change in chemotherapeutic regimen. However, the significance of the incidental VTE is not recognized, and prognosis and goals are not re-addressed; Palliative Care consultation is pursued exclusively for assistance with pain management. Within the span of two months, he is noted to have a more rapid decline requiring hospitalization in the intensive care unit for multi-system organ failure, and is ultimately transferred to a residential hospice facility. Could his rapid clinical demise have been predicted considering the known implications of a new VTE?

Conclusion: VTE remains a poor prognostic factor, and its incidence during the course of cancer treatment should prompt re-evaluation of original prognostication.

Exploring Provider Moral Distress Related to Caring for Children with Severe Neurological Impairment and Their Families (C910)

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Objectives

- Describe the concept of moral distress and how it relates to the care of children with severe neurological impairment (SNI) and their families.
- Explore how individual attitudes about quality of life, bias, and value judgments shape provider experiences with children with SNI and their families
- Become familiar with frameworks, tools and strategies available for multidisciplinary team members when moral distress occurs in caring for children with SNI and their families.

Background: There are a growing number of children in the United States with severe neurological impairment (SNI) who have conditions resulting in the need for support with basic care needs. With little evidence to guide decision-making, parents and providers often experience moral distress when caring for these children.

Case Description: Adam is a 12-year-old born with congenital diaphragmatic hernia who underwent tracheostomy and gastrostomy tube placement in the newborn period. His frequent admissions to the Pediatric Intensive Care Unit (PICU) for respiratory distress made him well-known to providers. At age 10 years, Adam developed a tracheal plug at home resulting in a cardiac arrest and profound neurologic impairment. He became minimally interactive and had severe spasticity. Adam began having monthly admissions to the PICU for pain and respiratory distress. His providers questioned the intensive nature of his care, often sharing their perception that his lack of responsiveness and inability to interact with the world around him gave him a poor quality of life. His mother felt that her interactions with her son were meaningful and requested all interventions available to prolong his life. Although the medical team felt it was time to transition to hospice care, Adam remained hospitalized for 3 months with ongoing testing. Ultimately, both Adam’s mother and providers were distressed by his prolonged hospitalization and discordance about the “right” way to care for Adam.

Conclusion: Moral distress occurs when providers feel that they are not caring for a patient in the “best” possible way and is common when caring for children with SNI. Care for children with SNI involves unique challenges related to limited evidence to guide treatment and judgements about quality of life and disability. Strategies such as involving ethics teams, examination of personal biases, and regular staff debriefings can be implemented to address provider moral distress.

Treating SBO with Gastrografin Challenge in Frail Elder Requesting Conservative/nonoperative Management (C911)

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Objectives

- Describe use of Gastrografin Challenge as an intervention for symptomatic SBO.
- Describe the important role of interdisciplinary collaboration in providing care based on patient needs, values and goals.

Background: For patients with small bowel obstruction (SBO) without signs of strangulation, Diatrizoate Meglumine (Gastrografin) has been shown to have a therapeutic effect by increasing pressure gradient across obstructive sites, resolving the obstruction. Gastrografin may be considered for patients who desire nonoperative management.

Case Description: An 88-year-old woman enrolled in a Palliative Care Homebound Program with history of urothelial carcinoma status post radical cystectomy with ileal conduit and recurrent SBOs presented with acute onset upper abdominal pain, nausea and vomiting. On admission, CT revealed loops of dilated small bowel with transition points at the ileum, likely due to adhesions. Surgery was consulted, however, in keeping with her conservative goals, she declined surgical intervention. She declined nasogastric (NG) tube placement and received intravenous antiemetic and hydration. With no signs of clinical improvement, on hospital day 2, interdisciplinary care conference was completed with the patient, palliative care, nursing, social work, Radiology and Gastroenterology. Treatment options were reviewed. The patient had a good response previously with Gastrografin per NG and requested to proceed with oral administration due to the discomfort associated with NG placement. Oral Gastrografin 20 mL in 600 mL water was administered without complication. Follow up imaging showed water soluble contrast material in the ostomy bag without dilated small bowel. On hospital day 3, bowel function returned with resolution of symptoms. She resumed oral intake and was discharged back to the Palliative Care Homebound Program.

Conclusion: Gastrografin challenge may offer a less invasive, yet effective, management option for patients seeking palliation of SBO. In those patients unable or unwilling to have an NG placed, oral administration with aspiration precautions may be a safe and effective management approach. Interdisciplinary collaboration and consideration of Gastrografin challenge as a therapeutic intervention is an option to be considered for patients hospitalized for acute SBO who wish to avoid surgery.

Evolution of Care Goals in Pediatric Patients with Life-Limiting Neurologic Diagnoses: A Case Series (C912)

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Objectives

- Compare three cases of infants with life limiting neurologic conditions requiring palliative care intervention to aid with medical goal setting
- Understand that while the diagnosis may be certain in pediatric populations, prognosis is often fluid, leading to the evolution of care goals over the course of a patient's illness

Background: Perinatal goals of care discussions with families of infants with life-limiting neurologic disease are complex. While prenatal diagnoses can offer additional time for decision-making, prognoses are uncertain until after delivery and can vary greatly. Over time, parent's goals of care may evolve based on their child's clinical status. Palliative care is uniquely positioned to assist these families using a shared decision making model that provides longitudinal and dynamic support in these complicated scenarios.

Case Description: Case 1: KD was born with hydrocephalus secondary to intrauterine hypoxemia. Initially, parents consented to invasive interventions. Over 8 months, multiple VP shunt revisions secondary to recurrent infection were required. Given his lack of improvement clinically, parents shifted care goals to focus on comfort and allow for a natural death.

Case 2: JC was diagnosed prenatally with alobar holoprosencephaly, allowing for care plan discussions prior to birth. He was discharged home at two days old with home hospice and Do-Not-Resuscitate orders. However, JC continued to breath without assistance and breastfeed well for the first 7 weeks of life. Parents expressed care goal modifications, including revisions to the DNR and palliative neurosurgery.

Case 3: AR was prenatally diagnosed with lissencephaly. The expected poor neurodevelopmental outcome was reviewed with the parents. They voiced understanding and elected to proceed with supportive interventions including gastrostomy tube and tracheostomy with long term ventilation. After a prolonged hospitalization, including education on home tracheostomy and ventilator care, AR was discharged home.

Conclusion: The approach to pediatric patients with life-limiting neurologic prognoses is multifaceted. Parents are confronted with a continuum of decisions about care goals and supportive interventions. As these cases illustrate, decisions about how best to care for their infant may change over time. Palliative care teams are uniquely positioned to provide longitudinal care and help families navigate evolving goals of care in this population.

Hitting Two Birds with One Stone: Buprenorphine for Pain and Opioid Use Disorder in the Palliative Care Setting (C913)

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Objectives

- Discuss the risk of substance and opioid use disorder (SUD/OUD) in the people with serious illness
- Describe the implementation of medication-assisted treatment utilizing buprenorphine into the outpatient palliative care setting

Background: The incidence of opioid use disorder (OUD) is increasing in the US and the risk is similar in the general population and in those with serious illness. Palliative Care providers in the outpatient setting are often asked to manage pain, at times in people with OUD. Medical management of their pain may be limited due to OUD. However, the use of buprenorphine may offer a way for providers to manage both pain and OUD in the palliative care setting.

Case Description: L.M is a 55 y.o. woman with recently diagnosed breast cancer undergoing neoadjuvant chemotherapy prior to planned lumpectomy and axillary node dissection. She had chronic musculoskeletal pain and was taking opioids (morphine equivalent 100 mg daily) for 10 years. After the cancer diagnosis she reported her chronic pain worsened, but her prescriber was not willing to increase her opioid doses. She began to self-escalate the opioids, was running out early, and began to worry about her opioid use. Her friend, who was being treated with buprenorphine for OUD, encouraged her to consider this as an option. She was referred to palliative care to discuss her concerns. She met the criteria for OUD and was offered buprenorphine as a treatment for OUD that would also be helpful for pain. Utilizing guidelines for buprenorphine treatment developed by primary care, she was transitioned to buprenorphine/naloxone dosed twice daily. She underwent a lumpectomy while on buprenorphine/naloxone and the dose was increased for 2 weeks and then tapered back to her original dose. Her pain has remained controlled and she reports less side effects than when on pure mu agonist opioid therapy.

Conclusion: Treatment with buprenorphine/naloxone is an option to treat pain in individuals with OUD in the palliative care setting for people with serious illness.

To the Other Side of Suffering: Use of Art and Narrative to Facilitate the Expression and Experience of Spirituality in a Transgender Woman (C914)

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Objectives

- Define generalist spiritual care
- Describe the role of the volunteer as a provider of generalist spiritual care
- Discuss the use of art and narrative as interventions to reach spiritual care needs of people receiving end-of-life care

Background: Western Zen Buddhist philosophy has a word *Upaya*, defined as being skillful in means to evoke the spiritual nature in another by statements or actions adjusted to their needs and adapted to their capacity for comprehension. On the interdisciplinary hospice team, each member provides care for the human spirit, including the volunteer. Spiritual care interventions include providing a compassionate presence, deep listening, and bearing witness. At times volunteers also have special gifts, such as art, that can be used as skillful means to bring forth the expression and experience of spirituality in the hospice patient.

Case description: The case describes the six-month journey of a hospice volunteer and her patient, a transgender woman in her late 50's, as they composed the patient's life history, poetry, and artwork into a book. In life review, the social worker and the volunteer learned that as a younger person, the patient used her art as a way to cope with the challenges of discovering, embracing, and disclosing her gender identity. The social worker encouraged the patient to rekindle her creative spirit as she embarked on another journey, expressing and experiencing spirituality during the last months of her life. The project, which started as a poem recorded on a smart phone, became an instrument for the patient to reconnect with her father and siblings, to acknowledge her own unique divinity, to connect with her inner wisdom and most importantly to her to leave a legacy "for others who had suffered."

Conclusion: A hospice volunteer used skillful means as an artist to help her patient bring forth the expression and experience of spirituality. This case reveals how the volunteer as a hospice team member can provide care for the human spirit.

Medicare Care Choices Model Reduced Hospital Utilization Cost of Care (C915)

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Objectives

- Participants will be able to describe how use of case information to support expansion of hospice and palliative care services.
- Participants will be able to describe how Medicare Care Choices Model of Care impacts the vulnerable terminally ill population
- Participants will be able to describe how an interdisciplinary hospice team supported reduction in hospital utilization and cost of care.

Background: The Medicare Care Choices Model (MCCM) is a demonstration project that supports provision of care by an interdisciplinary team for dually eligible end stage Congestive Heart Failure (CHF) patients who are terminal.

Case Description: A 61 year old male with terminal systolic and diastolic CHF was enrolled in MCCM by a palliative care team that were part of an embedded hospice and palliative care program within the advanced heart failure clinic. The patient was a high utilizer of the ED, had frequent hospitalizations, and was non-adherent to medical recommendations. He had a history of illicit drug use, continued alcohol and tobacco use, and limited social and financial support. The MCCM team included an RN, MSW, MD, Chaplain, and CHF Clinic Staff. For the 6-months prior to MCCM the patient went to the ED 5 times and was hospitalized 7 times. For the 6-months, he received MCCM he went to the ED 2 times under direction for the MCCM team and was not hospitalized. For the 6-months following MCCM, he utilized the ED 10 times and was hospitalized 11 times. Eventually he was admitted to hospice and died 24 days later. Cost pre-MCCM was $521 per day, during MCCM was $10 per day, and post-MCCM was $840 per day. Total cost savings during the MCCM care provision period were $100,042.

Conclusion: This case demonstrated reduced ED and hospital utilization and cost in a vulnerable dually eligible end stage Congestive Heart Failure patient with minimal interdisciplinary home support. Expansion of hospice and palliative services are recommended, particularly when embedded within specialty clinics such as the advanced heart failure clinic.

Understanding Physician-Family Conflict: He Told Us “Force Feed Me” (C916)

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Objectives

- Recognize the importance of understanding conflict.
- Describe three layers of conflict: the facts story, the emotions story, and the identity story

Background: Medical decision-making at the end of life can sometimes lead to conflict. Interventions such as artificial nutrition (AN) can seem “aggressive,” yet some families strongly advocate for them. Exploring why well-meaning family members approach this decision so differently from the clinician provides a path to conflict resolution.

Case Description: Mr. T, a 65-year-old man with severe cachexia from metastatic urothelial cancer, was admitted with profound weakness, anorexia, and dysphagia. Despite multiple family conferences where clinicians explained that AN would provide no benefit, his wife and son were committed to starting AN. We explored the three components of conflict—what each party considered to be the truth or the facts, their emotions, and what identities are being threatened. Mr. T’s family did not perceive AN as burdensome, and hoped it might have some benefit. They were grieving his rapid decline, and wanted to honor his wish “take me to the hospital so they can force feed me.” Failing to fulfill this wish for her husband threatened Mrs. T’s role in the family as “the one who could always make it happen.” Meanwhile, we acknowledged the reasons we resisted AN for Mr. T. There is no scientific evidence to support AN for this patient. We would not want AN for our own dying family member. And facilitating TPN for Mr. T, thereby encountering critique from other clinicians, threatened our identity as “good” palliative care providers. We acknowledged differing opinions and reasoning, and tried to find a common goal – honoring the patient’s wish. Eventually, he returned home with hospice on basic TPN without laboratory monitoring.

Conclusion: The three layers of conflict—the facts, the emotions, and the identity story—provide a framework for understanding conflict. This is essential to designing a plan that is acceptable to all parties.

“When can I get off these pills?”: A Collaborative Approach to Voluntary and Gradual Outpatient Opioid Taper in Cancer Patients (C917)

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Objectives

- Describe how palliative care clinicians can broach and discuss gradual opioid taper with cancer patients and survivors.
- Identify opportunities to assist patients with cancer pain who are also in the process of recovery from substance abuse.
- Collaborate with patients to formulate and guide a successful opioid taper plan.

Background: Opioids are the mainstay of treating cancer- and treatment-related pain. There is limited evidence to guide clinicians on how to taper opioids in cancer patients who have completed their therapy, no longer need, or wish to discontinue opioids. Opioid treatment and taper are especially challenging in cancer patients with a history of substance abuse, as exposure to opioids during treatment can threaten patients’ recovery. Palliative care clinicians are often asked to help these patients.

Case Description: Mr. A is a 42 year-old widower and single father with a history of opioid abuse and stage IIIb squamous cell lung cancer treated with definitive chemoradiation complicated by a painful empyema. He was referred to our palliative care clinic for ongoing management of chest pain and was discharged from an outside hospital on methadone 10mg three times daily and oxycodone 20mg as needed. From our initial meeting he was committed to tapering off opioids as he felt he could not face his supportive recovery community while taking opioids. He acknowledged his responsibility as sole parent of two teenage children as a significant stressor. Years prior he had been on methadone maintenance treatment and weaned himself off, though he disclosed a one-time oxycodone “binge” since his cancer diagnosis. His pain stabilized and resolved within weeks. Using a collaborative approach we guided him in successfully tapering off opioids over six months from a maximum dose of methadone 15mg three times daily and oxycodone 20mg five times daily.

Conclusion: Effective and gradual opioid taper in cancer patients is feasible in outpatient palliative care. We will review our clinic’s best practices and experience successfully assisting cancer patients and survivors in tapering opioids. Specifically, our approach works with patients to address fears, minimize withdrawal symptoms, and allow some control over the tempo of the taper schedule.

People Can’t Help but Stare: Home Based Palliative Care for Super Morbid Obesity (C918)

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Objectives

- Recognize the psychological impact of super morbid obesity on both the patient and the healthcare provider.
- Identify and overcome barriers to caring for patients with super morbid obesity.
- Develop an interdisciplinary intervention in treating a patient with super morbid obesity.

Background: Super morbid obesity can result in persons becoming homebound and creates many challenges for patients, healthcare providers, and healthcare systems. Palliative care providers are well-suited to help with the vast physical and psychological suffering from this diagnosis; yet they must identify and process their own reactions to hearing about and seeing a person of extreme size to provide care with dignity, respect, and confidentiality.

Case Description: Patient presented to HBPC as bedbound due to weighing greater than 700 pounds with a BMI of more than 100, and is classified as super morbidly obese. The clinician noted an array of stunned looks, questions, and curiosity regarding the patient’s size while providing care.
The patient suffered from antibiotic resistant UTIs due to an indwelling catheter, cold and persistent cough, pitting edema bilaterally, muscle spasms, and most recently ESRD. The emotional and physical strain of being moved to seek medical treatment, caused skin stretching and tearing, coupled with embarrassment, and was a traumatizing experience. A LCSW was consulted to manage grief and discuss advanced care planning. Both cardiology and pulmonology were utilized on how best to treat patient’s dyspnea, obesity hypoventilation syndrome, and CHF.
Unfortunately, interventions were not enough to change the outcome for this patient whose course led to heart failure, respiratory failure, kidney failure, and short-term dialysis with an uncertain outcome at the time of this writing.

Conclusion: The interventions provided were palliative in nature, increasing comfort by alleviating suffering, and offering quality of life. This poster will help clinicians identify and process their own reactions towards this condition as well as review integral parts of an interdisciplinary approach, and identify barriers to caring for homebound patients with super morbid obesity.

When the End of Life Options Act is Not a Clear Option (C919)

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Objectives

- Describe physician aid-in dying (PAD)
- Describe approach to the care of patients who do not meet requirements of PAD

Background: Physician aid-in-dying (PAD), legalized in California under the End of Life Options Act, describes a practice that allows physicians to prescribe a lethal dose of a medication to a terminally ill person. Terminally ill is defined as a prognosis of six months or less and restricts patients with more protracted or unclear disease trajectories from requesting aid in dying medications. As a counterpoint to the American approach to PAD, Belgium allows assisted suicide for competent adults with constant mental or physical suffering independent of prognosis. Here we describe the case of a patient who requests PAD without an established terminal diagnosis.

Case Description: P.W. is a 92-year-old woman with severe, transfusion-dependent anemia, suspicious for gastrointestinal or hematologic malignancy. Patient declines further work-up stating that she does not intend to undergo any cancer-directed treatment. She describes profound and constant mental suffering related to her irreversible, functional decline. Based on her declining function as well as her experience with her mother’s slow death from dementia, she requests information regarding PAD. Unfortunately, because of the lack of an established terminal diagnosis, her care team is placed in a legally ambiguous position. Clinical ethics is consulted and advises against it. P.W expresses extreme distress at not being allowed to proceed and continues to request it throughout her hospitalization. She is eventually discharged home with her family until a terminal diagnosis can be established.

Conclusion: PAD remains highly controversial and established legal restrictions attempt to clearly define patients who will benefit without sliding down an ethical “slippery slope.” These restrictions, however, may increase suffering for patients who request aid in dying medications but do not immediately qualify. It is important as PAD becomes more prevalent to continue to assess our restrictions while mobilizing additional support for those who request PAD but do not qualify.

Advance Care Planning for Individuals with Intellectual and Developmental Disabilities (C920)

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Objectives

- Describe the role of palliative care physicians in recognizing legal barriers to care.
- Describe barriers to medical and palliative care for adults with developmental disabilities

Background: Civil Rights of Institutionalized Persons Act of 1980 was largely influenced by a class action suit brought forth against Willowbrook, a New York state-supported institution for children with intellectual disability. Since then, many state wide agencies were created with goals to protect intellectually disabled people from abuse, and maintain their best interest.

Case Description: A 52-year-old male with a past medical history of severe intellectual disability and intermittent explosive disorder was admitted for volvulus of sigmoid colon. His hospital course was complicated by multiple surgeries, sepsis with multi-organ failure requiring various pressors and cardiac arrest.
This patient had been living at home with his mother most of his life, until she could not care for him any longer. She had guardianship over health and property granted by the courts several years ago. His family, mother and 3 siblings, struggled with the idea of long term mechanical ventilation and long term feeding tubes that would lead to permanent sedation for his compliance alone. They decided it was in his best interest to provide a peaceful, comfortable death with dignity in the hospice unit and opted for a palliative extubation.
Unfortunately, after the decision was finalized it was brought to the team's attention that because of his recent move to a group home, multiple agencies were involved in his decision making process. Although his legal guardian could make medical decisions to escalate care, decisions to de-escalate care or pursue end of life care required independent evaluations and unanimous agreement from these agencies.

Conclusion: Identifying ethical and legal concerns prior to family deciding on end of life care can allow for appropriate planning and more effective advocacy for your patient
while also preventing unnecessary distress for families at one of the most vulnerable times in their lives.

Spiritual Healing in a Hospice Patient leading to Measurable Decreases in Opioid Use: A Case Report (C921)

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Objectives

- Recognize spiritual suffering in end of life
- Describe the interdisciplinary approach to the opioid taper process in response to spiritual healing in hospice care.

Background: Consequences of uncontrolled spiritual distress can lead to an exacerbation of symptoms leading to high dose opioid therapy for pain management and reduced quality of life among patients.

Case Description: A 65 year old US Navy Veteran admitted to the VAMC inpatient hospice unit with progressive hepatocellular cancer, alcoholic cirrhosis, ascites requiring frequent paracentesis, substance abuse, varices, hepatic encephalopathy, s/p transarterial chemoembolization, s/p radiofrequency ablation with uncontrolled right upper quadrant pain of 10/10 on the numerical pain scale. He continued to request higher and higher doses of opioids for his pain. The interdisciplinary team diagnosed a major component of spiritual distress. His spiritual distress was related to his difficulty coping with his changing image and increased dependence. The chaplain had long and frequent discussions with him regarding his past, his Christian faith, and his beliefs. The chaplain helped him reconcile with his faith in God and family through active listening, socialization with peers, and identifying consolation of his anxiety by reading religious passages from the bible. The spiritual healing led to a significant improvement in his pain relief. The Veteran requested an opioid reduction. The palliative pharmacist assisted the team by developing an opioid taper process for the Veteran. Hyperalgesia was noted by the team during the taper process, further reinforcing improvement in pain from spiritual healing. Improvements in objective pain scores were observed to be an 87.5% reduction in morphine, and Veteran died peacefully on the hospice unit.

Conclusion: This case demonstrates the power of spiritual healing in a Navy veteran at the end of life. The spiritual healing appeared to lead to objective and measurable improvements in pain and anxiety control.

What Do We Do Now? – Opioid Prescribing Practice following Inappropriate Results on Urine Drug Screens for Palliative Care Clinic Patients (C922)

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Objectives

- Acknowledge the national public health crisis of opioid abuse
- Recognize that opioid abuse is an issue that affects palliative care patients and providers
- Identify the need to create opioid prescribing guidelines in palliative care clinics for patients who suffer from active opioid use disorders

Background: Opioid abuse is a serious national public health crisis leading to more American deaths in 2016 (64,000) than the wars in Vietnam and Iraq combined. This led to the CDC creating guidelines recommending measures like using urine drug screening (UDS) to guide safe prescribing of opioids for chronic pain. While these guidelines excluded palliative care patients, studies have shown 43-46% of cancer patients in outpatient palliative care clinics are at moderate-high risk for opioid abuse. While UDS was ordered for 5-40% of patients in these clinics, 46-70% yielded inappropriate results. Despite clinics indicating that substance abuse and diversion are issues, few have policies for screening patients or for proceeding with inappropriate UDS results. No guidelines exist for this population.

Case Description: Mr. P is a 39 year-old male with acute myeloid leukemia and a history of polysubstance abuse. He was determined to be ineligible for stem cell transplant. During salvage chemotherapy, he developed painful mucormycosis of the liver. He was prescribed oxycodone for his pain and referred to supportive care clinic. He signed an opioid contract, agreeing that opioids may stop being prescribed if concerns for substance abuse arose. He later missed multiple appointments and had several inappropriate UDS results, testing positive for cannabinoids, cocaine, and heroin. Despite this, oxycodone continued to be prescribed given adequate pain control with stable dosing, no requests for escalation, and his poor prognosis.

Conclusion: This case illustrates the challenges with screening for opioid abuse in outpatient palliative care clinics as lack of defined policies can lead to no changes in care plans even with inappropriate UDS results. Given the national prevalence of opioid abuse even in the palliative care population, it is important to develop clear screening and treatment guidelines for palliative care clinics to provide the best care possible.

Nebulized Vasopressin to Control Hematemesis and Hemoptysis in a Child at the End-of-Life (C923)

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Objectives

- Develop an understanding of the prevalence and challenges of bleeding at the end-of-life.
- Recognize the importance of identifying bleeding source and recognizing complications of bleeding at the end-of-life.
- Describe the uniqueness and distress of visually apparent bleeds such as hemoptysis and hematemesis.
- Identify non-invasive means to manage significant bleeds at the end-of-life that are particularly tolerable for children.

Background: Bleeding occurs with some regularity at the end-of-life. Patients often endure resulting fatigue, weakness, pain, dyspnea and anxiety. These symptoms are magnified in visually apparent bleeds. Management can be particularly challenging as we attempt to balance therapies with goals of care. This challenge is greater in the pediatric population: children are often more sensitive to symptoms and less tolerant of therapies.

Case Description: A 7-year-old male with recurrent, refractory Burkitt's lymphoma was frequently hospitalized for palliative chemotherapy and disease complications. On his final admission, he experienced gross hemoptysis and hematemesis: he was short of breath, fatigued and anxious due to his blood loss. His and his family's angst were heightened by "seeing" him bleed. Potential, especially invasive, treatments were limited by our goals to promote comfort, limit interventions, maintain alertness, poor intravenous access and a small bowel obstruction. Nebulized vasopressin, 20 units in 4ml of normal saline given over 10 minutes, provided our patient with needed relief. His bleeding remitted and he tolerated the medication's administration.

Conclusion: Many treatments for hemorrhage exist. In the palliative care population, however, goals of care, administration, side-effects and tolerability all present unique complications to treatment. Given our success and the unobtrusive nature of its administration, further investigation into nebulized vasopressin as a potential therapy for hemoptysis and hematemesis at the end-of-life is warranted.

A Bridge to Life: Left Ventricular Assist Device as Destination Therapy (C924)

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Objectives

- Describe the evolution of the left ventricular assist device (LVAD) from a bridge to transplantation or myocardial recovery to destination therapy (DT-LVAD).
- Discuss the need for palliative medicine throughout the medical course of patients with DT-LVAD, pre-and-post implantation.
- Identify opportunities for palliative medicine to assist DT-LVAD patients with symptom management, advance care planning and identification of meaningful outcomes for the patient, caregivers and the health care system.

Background: Initially, the left ventricular assist device (LVAD), a mechanical pump, surgically implanted into the left ventricle with an outflow cannula implanted in the aorta, was designed as a bridge to heart transplant or myocardial recovery. With the approval of the LVAD as destination therapy (DT-LVAD) in 2003, there have been rapidly increasing numbers of patients with LVADs who are not candidates for heart transplants.

Case Description: A 68-year-old man with chronic end stage heart failure who received a left ventricular assist device (LVAD) in 2016. He was seen by palliative medicine prior to implantation of LVAD as destination therapy (DT-LVAD) for advance care planning. At the time of the initial palliative medicine consult, goals of care were documented and patient received a LVAD shortly thereafter. He did not continue to follow up with palliative medicine.

He progressed well at home, but in early 2017, he started to have increasing fatigue, shortness of breath and fluid retention leading to multiple hospitalizations. In August 2017, patient was admitted to the CHF/VAD service and started on furosemide and milrinone infusions.

A palliative medicine consult was placed to revisit goals of care and end of life preferences as patient’s medical condition continued to decline. The patient and his family exhibited considerable distress at the patient not being transplant eligible despite counseling prior to LVAD implantation.

After multiple visits with palliative care clinician and exploration of end of life preferences, patient elected to be discharged to inpatient hospice on a dobutamine infusion to maximize quality of life. The patient continued to decline and his LVAD was discontinued one week after discharge from hospital. He died comfortably.

Conclusion: As the number of DT-LVAD patients increase, so does the importance of optimizing palliative medicine involvement in both the pre-and-post implantation phases of DT-LVAD patients.

Palliative Care Bridges the Gap Between Pediatric Hospital and Adult Hospice (C925)

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Objectives

- Discuss the difficulty patients face with giving up their curative treatment efforts and teams to pursue hospice.
- Illustrate role of PPC as a bridge to hospice, particularly in hospice enrollments late in the illness trajectory.
- Describe strategies that PPC teams can use to foster collaborations between families, hospital-based subspecialty teams, and community-based hospice teams.

Background: At 21 years, patients treated in pediatric hospitals age out of benefits of the Concurrent Care provision of the Affordable Care Act. The pediatric palliative care (PPC) team can serve as bridge to hospice and provide continuity for those hesitant to enroll on hospice.

Case Description: SD was a 27 year-old with Neurofibromatosis type 1 diagnosed with a large malignant peripheral nerve sheath tumor of the right flank at age 19.

During the last year of his life, he experienced increasing pain and returned multiple times to the hospital. Although he wanted to be at home, he was conflicted about transitioning to hospice care because he was not eligible for concurrent care benefits and wish to continue cancer directed therapy. SD would also have to transition from a pediatric hospital to adult hospice care based on age. He had grown to depend on the pediatric oncology team directing his care for 8 years and delayed hospice enrollment for many months. Ultimately enrolled in hospice with hospital-based support of PPC who were already involved in his care.

Two weeks after initiating hospice, SD's symptoms intensified with a small bowel obstruction. In collaboration with hospice the PPC team initiated and titrated a PCA for improved analgesia. In conjunction with primary oncology team, PPC NP and SW performed a home visit with the hospice RN near the time of death. PPC clinicians remained present at request of the family, working with hospice to fulfill SD's wish to remain at home during last hours of life.

Conclusion: Although hospice enabled SD to die at home, by necessity they were a late introduction into SD's care team. Ongoing PPC involvement allowed family to maintain connection with the oncology they feared losing and led to increased trust of hospice while receiving end of life care at home.

A Story of Star Crossed Lovers: Facing One's Death While Still Living For Each Other (C926)

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Objectives

- Review the importance of palliative care in resolution of conflicts
- Discuss how to support and help surrogate decision makers in making difficult decisions
- Discuss the importance of allowing for loved ones and patients to experience their grief
- Discuss how to reflect on one's own emotions as a clinician during these difficult encounters

Background: As palliative care providers we believe that relieving suffering is one of our main goals. However what about those who feel that suffering is natural to endure especially for the sake of their loved ones. Do we allow it or try to stop it?

Case Description: 57 year old female with end stage ovarian cancer was admitted to the hospital, escorted by her husband who never left her side. She became lethargic, was intubated and transferred to the ICU. Palliative care came to meet her husband who was distraught with the turn of events. With some counsel he decided for DNR. Then the question of palliative extubation came. The husband reluctantly agreed. In preparation for the day, we confirmed the prognosis with the patient and husband, that she unfortunately was dying regardless of her being intubated or not. When asked if she wished to proceed with extubation, she looked over at him for the answer. He cradled her head with his hands, looked in her eyes and called her "my precious." When she saw him struggling to find the answer she nodded no in response. The next day the husband was very angry that we told the patient she was dying. We decided not to pursue palliative extubation and offered our support. He apologized a few days later and we reassured him that we are not forcing them to do anything they are not ready for. She was extubated medically on the floor and died a few days later.

Conclusion: Despite understanding the truth, the patient was still willing to remain mechanically ventilated for the sake of her husband. Though we see it as suffering and our inclination as palliative care providers is to stop it, we need to remember that our job is to support the patient and family through their grief.

Atypical Agents for Treatment of Pain and Agitation in Critical Care (C927)

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Objectives

- List atypical agents utilized for refractory pain and/or agitation in the critical care setting.
- Discuss use of sub-anesthetic ketamine for pain management in the intensive care unit.
- Describe the role of valproic acid in the treatment of agitation and delirium in a critically ill patient with prolonged QTc.

Background: In the ventilated patient, paradoxical agitation may occur despite up-titration of sedative agents. How do you manage a patient who has reached the upper limits of typical sedation without adequate symptom control?

Case Description: Mr. R is a 22 year-old man status-post bilateral lung transplantation, readmitted with pulmonary emboli mechanically ventilated for respiratory failure. Despite rapid titration of hydromorphone to 10 mg/hour, propofol 40 mcg/kg/min, and lorazepam 4 mg boluses, he continues with ventilator dyssynchrony. Given rapid escalation of sedatives and severe agitation, opioid-induced neurotoxicity is considered. Initiation of methadone 10 mg via gastric tube (G-tube) every 8 hours, quetiapine 50 mg via G-tube every 8 hours, and a 50% decrease in hydromorphone resulted in symptomatic improvement. The patient's QTc quickly prolonged to 546 ms and methadone and quetiapine were stopped. Previous infusion settings were reinitiated and he was transitioned to ECMO therapy for worsening respiratory status. Sub-anesthetic intravenous ketamine was trialed for 72-hour periods to improve pain control and decrease opioid requirements. Agitation worsened after each ketamine trial and sedatives were rapidly increased (hydromorphone IV 14mg/hour; lorazepam IV 14mg/hour). After the third 72-hour trial period, we recommended standing ketamine 10 mg via G-tube every 6 hours and valproic acid 1 gram via G-tube every 12 hours with 50% decrease in sedative infusions. Agitation episodes decreased and the patient stabilized on oral ketamine 30 mg via G-Tube every 8 hours and valproic acid 1 gram via G-tube every 6 hours; sedative infusions were decreased by 85%. The patient weaned from ECMO, ketamine, and valproic acid and was discharged to a long-term acute care hospital on oral opioids, ultimately returning home.

Conclusion: As standard treatments of refractory pain and agitation may be associated with QTc prolongation, atypical agents like oral ketamine and valproic acid can be useful in critically ill ventilated patients.

Invasive: VAD therapy in the sexually abused patient (C928)

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Objectives

- Explore psychosocial/spiritual evaluation prior to VAD therapy placement.
- Describe how a history of sexual abuse may influence a patient's interpretation of VAD.
- Discuss the motivations for deactivation of VAD in the case of sexual abuse.

Background: Ventricular assist devices may be implanted as a bridge to transplant or as destination therapy. For patients with a history of sexual abuse, what happens when the latter state becomes unbearable?

Case Description: Ms. K is a 52 year-old woman with familial ischemic cardiomyopathy who underwent CABG without left ventricular recovery resulting in ventricular assistant device (VAD) implantation. Initial plan was to bridge to heart transplantation, however due to VAD thrombosis and driveline abscess VAD was now destination therapy. She also had an extensive history of mental illness including anxiety, depression, suicide attempts and sexual abuse as a child. The VAD symbolized a recurrent violation of Ms. K's body. She could not bear to have a male health care professional perform a psychical exam, which triggered disturbing memories. The VAD driveline itself evoked a sense of invasiveness, akin to the exploitation she once experienced. Ms. K attempted to reconcile this "other" which was now a part of her, by the prospect of a transplant. When complications prohibited a transplant, Ms. K grew to despise her VAD. She called it a hassle, a burden, a leash. She tells us that she wished she never had it. Her existential distress envelopes her and she asks to have her VAD deactivated. The cardiology team struggles with honoring this wish given her history of suicide attempts and current passive suicidal ideation.

Conclusion: The prevalence of VAD therapy continues to grow. For patients with destination therapy, the device becomes a permanent and invasive part of the body. In those with a history of sexual abuse, the VAD may cause post-traumatic stress syndrome inciting a desire for VAD deactivation.

A Complex Case of Dementia Caregiving at the End of Life: The Need for Advance Care Planning to Inform Treatment Decisions and Reduce Caregiver Burden (C929)

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Objectives

- Describe the difficulties that family caregivers face in making end-of-life treatment decisions for loved ones with dementia and multimorbidity.
- Describe how advance care planning throughout the course of serious multimorbid illness may have improved the quality of care for the patient and reduced caregiver burden and prolonged grief.
- Identify healthcare systems-based opportunities to incorporate early and frequent advance care planning for older adults with dementia and multimorbidity.

Background: One in ten individuals ≥65 years has dementia. Dementia progresses insidiously, making it difficult for caregivers to recognize when that patient has reached the terminal phase. As dementia progresses, caregivers must navigate the medical system, make treatment decisions, and manage their own needs. Early advance care planning to identify patient goals, values, and beliefs is warranted, with increasing specificity for treatment decision-making as health status changes.

Case Description: Mrs. P. was an 80-year-old woman with dementia, hypertension, and diabetes. Over ten years, she suffered five strokes, which left her progressively more disabled. She was wheel-chair bound, incontinent, and experienced frequent episodes of hypoglycemia. She lived with her husband, her primary caregiver. During her last year of life, she was diagnosed with melanoma, which triggered interactions with the medical system that highlighted the need for early advance care planning. At the time of cancer diagnosis, her dementia had reached the terminal phase, yet she received burdensome cancer treatments, including surgery, without mention of comfort options. A goals of care conversation or family conference was never initiated. Cancer treatment required travelling two hours, which was agonizing for the patient and caregiver. During this time, the caregiver was increasingly distressed and burdened by Mrs. P.'s declining condition and treatment decision-making. Mrs. P. was enrolled in hospice during her last week of life at the insistence of the patient's daughter. Her husband was left with prolonged grief and regret that he "didn't do enough."

Conclusion: Incorporation of clinical pathways to increase advance care planning can help facilitate communication and documentation to close the gap between the care patients want and the care they receive at end of life. In this case, the process of advance care planning could have reduced interventions that did not provide benefit and paved the way for better caregiver coping during bereavement.

Views from the OR: Palliative Abdominal Surgery and the Moving Target of "Enough" (C930)

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Objectives

- Recognize the changing spectrum and multiple challenges in managing malignant bowel obstruction
- Describe the pre-operative and intraoperative assessment utilized to determine the appropriateness and extent of surgery to be offered in this setting
- Understand the existing data supporting the use of ultra-radical surgery in malignant bowel obstruction
- Identify opportunities to introduce palliative principles early in planning process when aggressive surgery for malignant bowel obstruction is being contemplated

Background: Targeted therapies, primarily biologics, result in more prolonged survival across a wide range of malignancies. This has further complicated the decision-making surrounding palliative surgery for malignant bowel obstruction and fostered reconsideration of the use of ultra-radical surgery, with and without concomitant hyperthermic abdominal chemoperfusion (HIPEC) in selected patients.

Case Description: Case #1: A 29 years old man was diagnosed with Stage IV Klatskin cholangiocarcinoma, based on a CT showing omental, peri-umbilical and pelvic carcinomatosis. Following enrollment in a Phase II trial of a novel biologic agent, he presented at 3 years post-diagnosis with a colonic obstruction that could only be relieved with a side-wall (blowhole) colostomy. Fifteen months later, at exploratory laparotomy for a multilevel bowel obstruction, no palliative surgery could be completed due to extensive carcinomatosis. He is now 5 months post-surgery, having no bowel movements and unable to tolerate any oral intake, with a nasogastric and bilateral nephrostomy tubes in place.

Case #2: A 39 years old female was diagnosed with disseminated low grade mucinous neoplasm of the appendix. She underwent debulking, splenectomy, peritonectomy, gastric and small bowel resections, and was perfused for 90 minutes with mitomycin. She remained asymptomatic for 3 years, when she presented with bowel obstruction accompanied by bulky tumor recurrence. She was again debulked and given HIPEC. Approximately two years later, following use of FOLFOX x 6 months, her CT showed further disease progression. She underwent a third debulking and HIPEC, this time employing oxaliplatin, because of her inability to eat due to multilevel bowel obstruction. The patient ultimately died 15 months later from extension of the tumor to the pleural cavities and cancer cachexia.

Conclusion: These two cases illustrate the evolving indications for palliative abdominal surgery, as well as demonstrating both its opportunities and limitations.

Paging Palliative Care - Stat! Exploring the Need for Palliative Care in the Emergency Department (C931)

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Objectives

- Describe the importance of palliative care services in the emergency department setting.
- Discuss the elements of informed consent.
- Explain the ethical issues involved with informed consent, including failure to present palliative options.

Background: Many patients who present to the emergency department (ED) have a need for palliative care services, including assessing caregiver needs, discussing goals of care, and managing quality of life. If providers fail to meet these needs, such as by failing to adequately counsel patients about palliative treatment options, patients may suffer unnecessary distress. This case describes a patient who felt he was coerced into life-saving surgery against his wishes.

Case Description: Mr. R. is an 85-year-old male with a history of abdominal aortic aneurysm, COPD, and other significant comorbidities who presented to the emergency department with severe back pain. Imaging revealed a ruptured abdominal aortic aneurysm (AAA). The patient stated he had previously refused surgical intervention for his AAA and that he did not want to pursue surgical repair now. He repeated his refusal multiple times in discussion with the surgical resident and the ED attending. However, the vascular surgery attending subsequently saw the patient and convinced him to undergo emergent surgery. The next morning, the patient and his daughter angrily confronted the surgical team on rounds. They both questioned why he had undergone surgery after refusing it multiple times. The patient said he felt he had undergone the surgery without his consent. The patient's daughter was adamant that she 'just wanted her father to go to heaven.' Palliative care was consulted, and the patient was transferred to inpatient hospice, where he died 8 days later.

Conclusion: It is critical to discuss palliative care options with patients, including in the emergency department, and physicians must be careful to respect patient autonomy when formulating treatment plans. This case highlights the opportunity for palliative care physicians to advocate for enhanced palliative care services in emergency departments and the need for continued outreach to clinicians and policy-makers.

Location, Location, Location - Palliative Care in Rural Places (C932)

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Objectives

- Recognize that patients may have different care options dependent upon geographic location.
- Identify strategies to bridge the gap between care delivered at the medical center, where there is a full team, and rural areas, where there is no palliative care team, but where various providers, including nurses and clergy, may be recruited to care for a palliative care patient.

Background: Our pediatric palliative care program is housed in a large academic medical center in a small college town, and many of our patients live in rural counties outside of town. These rural areas are less likely to have hospice and palliative care services, and thus present challenges to provide services to patients with multiple symptoms and complex care needs. We describe one such patient and the collaborative effort between the child's local providers and specialists at the medical center, including the hematology/oncology trainee.

Case Description: Our 7-year old patient was diagnosed with rhabdomyosarcoma at 6 years of age. His tumor was located in the left parotid, in a favorable location. He was seen by the pediatric hematology/oncology program at our medical center, and was assigned to one of the heme-onc fellows. Despite aggressive therapy, the cancer progressed. At the time of first progression, palliative care became involved for symptom management. Unfortunately, the cancer metastasized to the lungs. The patient's parents chose to take him home and focus on his comfort. As he approached the end of his life, his symptoms were well managed by the hematology/oncology fellow, in collaboration with the patient's family physician and the pediatric palliative care physician. There weren't social workers involved at the end of his life, but the family's priest was supportive throughout the patient's disease course. Since he died in hospital, there were nurses, but not specifically hospice/palliative care nurses.

Conclusion: Oncology and palliative care patients living in rural, remote, or underserved geographic locations may receive inadequate palliative care services. To bridge the gap, a collaborative approach that includes the primary and/or local provider, oncologist, and palliative care team members is optimal. Careful planning, communication, and documentation, as well as development of collaborative relationships between all providers, patient, and family are key to providing optimal support and care.

Recognizing Signs of Opioid Induced Neurotoxicity in a Patient with Terminal Agitation – A Case Report (C933)

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Objectives

- To recognize and manage opioid induced neurotoxicity in terminally agitated patients.
- Facilitate future research in opioid-induced neurotoxicity

Background: It is estimated that approximately 25-85% of patients within the dying process experience symptoms of restlessness and increased pain prior to death. Treatment focuses on treating the underlying cause as well as providing symptom specific management. This involves the use of benzodiazepines, opioids and neuroleptic medications. These medications are associated with risk of severe adverse reactions. The key to management is to recognize signs of toxicity early on.

Case Description: A 68 year-old male with metastatic lung cancer presented with altered mental status and worsening pain. Physical examination revealed a lethargic agitated male with diffuse pain and evidence of lower extremity myoclonus. Previous to admission, pain was treated using a fentanyl patch with oxycodone for breakthrough. In view of escalated pain symptoms, patient received multiple doses of oxycodone. Within 24 hours, he exhibited signs of hyperalgesia, allodynia, myoclonus and worsening agitation. Fentanyl and oxycodone was discontinued. Opioid rotation to hydromorphone and lorazepam were initiated.

Conclusion: Opioid-induced neurotoxicity describes symptoms of cognitive impairment, sedation, hallucinations, myoclonus, seizures and hyperalgesia. This is often the result of opioid metabolite accumulation. Aggressive supportive care is warranted and usually involves hydration, opioid rotation and concomitant use of benzodiazepines. Rotation to a different opioid will allow the metabolites to be excreted and still maintain pain control with new analgesic. Opioid medications that contain these metabolites include merperidine, morphine, codeine and hydromorphone. This case is unique in that opioid rotation was from Fentanyl to hydromorphone. Typically, opioid rotation is made to methadone or Fentanyl.

What’s More Complex? Management of Erythropoietic Protoporphyia or Pain Control in a Model of Multidisciplinary Care? (C934)

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Objectives

- Describe Erythropoietic protoporphyia (EPP) in a young adult
- Review pharmacological management for neuropathic pain and how it relates to a patient with protoporphyrin-related polyneuropathy
- Discuss collaborative effort between the multi-disciplinary teams, the patient, and his parent to improve pain management plan

Background: Erythropoietic protoporphyria (EPP) is a rare disorder caused by deficiency of the enzyme ferrochelatase leading to protoporphyrin accumulation in the bone marrow, plasma, and red blood cells. As a primarily cutaneous porphyria, patients with EPP have photosensitivity; however, in a small number of patients, liver failure necessitating transplantation can occur.

Case Description: We present a 17 year old male diagnosed with EPP at age 6. His early course consisted of intermittent cutaneous flares due to photosensitivity. At age 16, he developed acute attacks of his EPP manifesting as severe abdominal pain with hepatosplenomegaly. At 17 years old, he developed liver failure and underwent hepatic transplantation with plans for subsequent stem cell transplant to cure the underlying enzyme deficiency. Post liver transplant, he developed a protoporphyrin-related polyneuropathy resulting in sensory deficits and severe motor weakness necessitating tracheostomy placement for chronic mechanical ventilation. As his neuropathy improved, he developed severe neuropathic and somatic pain difficult to control despite multi-modal use of pharmacological and non-pharmacological techniques. The involvement of numerous subspecialties complicated his management leading to patient and parent frustration as the teams had many differences in opinion regarding pain management strategies. After multidisciplinary coordination, objective means to assess his pain were agreed upon. His pain came under control with pharmacologic management comprised of methadone, gabapentin, duloxetine, and as needed opioids. Scheduled plasmapharesis and red blood cell exchanges decreased his protoporphyin levels and complemented his pharmacologic pain management. Multi-disciplinary involvement for pain management included subspecialists, social work, psychology, physical therapy, and occupational therapy with overall management directed by the palliative care service.

Conclusion: A multi-modal approach of pharmacological and non-pharmacological techniques can be utilized to relieve symptoms in a patient with polyneuropathy secondary to EPP. This presentation will review importance of symptomatic management and creation of a unified strategy when working within a multidisciplinary team.

The Dilemma of Patients with Symptomatic, Refractory Hypoglycemia (Doege-Potter Syndrome) (C935)

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Objectives

- Describe the pathophysiology and epidemiology of Doege-Potter syndrome
- Review standard and experimental treatments patients with paraneoplastic hypoglycemia

Background: Doege-Potter syndrome (DPS) is one of the paraneoplastic syndromes that cause life-threatening hypoglycemia. Patients with it may face complex decisions as they deal with refractory, symptomatic, and life-limiting hypoglycemia.

Case Description: Mr. M is a 52year old male with a history of anxiety, depression, chronic non-oncologic low back pain, and refractory fibrous sarcoma of the pelvis widely metastatic to the bladder, lungs, lower extremities, and bones who presents with 2 months of symptomatic hypoglycemia (blood sugar 40s, tachycardia, confusion) attributed to DPS. He is dependent on nocturnal dextrose but is increasingly unable to sustain normoglycemia and is becoming increasingly distressed from scrotal, lower extremity, and pulmonary edema due to continuous dextrose infusions. A trial of rapamycin is being considered.

DPS is a rare paraneoplastic syndrome characterized by hypoglycemia from non-islet cells due to a solitary fibrous tumor that secretes a prohormone form of insulin-like growth factor II (IGF-II). Surgical resection and steroids are the mainstays of treatment. Rapamycin is FDA approved to prevent organ rejection and coat coronary stents, and is known to increase risk for diabetes due to decreased glucose sensitivity and insulin intolerance, an adverse effect that may benefit Mr. M.

We will review the epidemiology of DPS, summarize published recommendations in treatment of hypoglycemia in these patients, and explain the theoretical basis behind a trial of rapamycin. We will also present considerations for symptom management and decision making, and share our patient's care plan and response to treatment.

Conclusion: Options are limited for patients with Doege-Potter syndrome who develop refractory hypoglycemia. Palliative care physicians should understand the limited treatment options and disease progression to better prepare patients for decision making surrounding continuous dextrose infusions at the end of life.

Palliative Care in the Safety Net: Caring for a Developmentally Delayed Visiting Patient and His Family (C936)

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Objectives

- Identify value of institutional triggers for opt-in palliative care referrals in critically ill patients to advance goals of care discussions
- Recognize the impact and added complexity of culture and language on access to care, including advance care planning, even with optimal resources
- Recognize the role palliative care teams can have in helping primary teams identify, acknowledge, and navigate physicians' emotional biases in prognosticating patient outcomes and limiting effect this can have on offering optimal solutions

Background: Palliative care services continue to be under-utilized by primary providers. This is in part due to complex emotions that teams may feel regarding their patients. Conversations around critically-ill can become more difficult when language barriers are present. Boston Medical Center, a teaching and safety net hospital, introduced a program using objective data to proactively identify patients appropriate for palliative care services.

Case Description: 38 year-old male from Guatemala, nonverbal; PMH of cerebral palsy and seizures, admitted for respiratory distress with stay complicated by prolonged vent course due to pneumonia and complex airway anatomy. The ICU team was beginning to discuss tracheostomy & PEG with family, with whom the primary team felt close. The team communicated primarily in English with sister though in Spanish with mother (with non-native speaking providers). Palliative care consult was triggered by pilot program. After discussion with palliative care, the primary team was encouraged to explore patient’s life and family decision-making process. Palliative care also encouraged primary team to critically consider patient’s likely trajectory and the role their own feelings played in clouding earlier recognition of patient’s poor prognosis. A series of goals of care conversations were held with family, palliative care team, primary ICU team, and interpreters.

Patient and family emphasized goal to get back to Guatemala where patient enjoyed excellent quality of life. The Patient was extubated with family understanding this would likely be terminal. We were able to secure charity hospice care and patient was discharged. He returned to Guatemala and is doing well.

Conclusion: This case illustrates several important aspects of patient care including 1) the importance of data-driven, early recognition for interdisciplinary palliative care consults; 2) integrating spiritual and psychological support into care plan; 3) even when utilizing interpreters, communication can play a significant role of families’ perception of illness.

Autoimmune Encephalitis Secondary to an Immune Checkpoint Inhibitor (C937)

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Objectives

- Recognize that unexplained altered mental status in a patient on an immune checkpoint inhibitor should prompt consideration of immune-related encephalitis
- Understand that immune-related encephalitis is a potentially reversible condition in patients with altered mental status and advanced cancer

Background: Atezolizumab is a programmed cell death ligand 1 immune checkpoint inhibitor (ICI) approved for advanced urothelial carcinoma and metastatic non-small cell lung cancer. Neurologic immune-related adverse effects such as encephalitis are rare but potentially reversible. High-dose steroids are the mainstay of treatment.

Case Description: We describe the case of a 54-year-old African-American female diagnosed with high grade urothelial carcinoma 4 months prior to admission. She underwent robotic nephroureterectomy after diagnosis. She presented with intermittent dysarthria and disorientation for 2 weeks after receiving the first dose of atezolizumab. Infectious workup with chest x-ray, blood, urine and CSF cultures were unrevealing. Her renal function was normal. She had metastatic disease of the liver with hyperammonemia (102 µmol/L) but normal transaminases; she failed to improve with an empiric trial of lactulose. An EEG on hospital day 8 did not reveal clear seizure activity, and she failed to improve with an empiric trial of anti-epileptics. An MRI brain examination did not show evidence of stroke, abscess or metastatic lesions. On hospital day 16, she was started on high-dose methylprednisolone for possible autoimmune encephalitis secondary to atezolizumab; her mental status improved over the next 3 days, though on day 18 she developed rectal bleeding for 24 hours and steroids were held for 4 days, during which time she became obtunded requiring intubation to protect her airway. On day 21, steroids were restarted, and by day 24 her mental status improved enough that she was successfully extubated, and was able to converse with her family, and transitioned to hospice.

Conclusion: Autoimmune encephalitis should be highly suspected in patients receiving ICI and early recognition is essential for maximizing clinical recovery. Withdrawal of ICI and initiation of immunosuppressive therapy, consisting of high-dose steroids and IVIG, improve neurologic outcomes.

Gemcitabine-Induced Radiation-Recall Myositis (C938)

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Objectives

- Discuss the clinical manifestations of radiation-recall.
- Recognize the association of gemcitabine with radiation-recall.

Background: Radiation-recall phenomenon is a rare diagnosis of exclusion that presents as inflammatory reactions involving skin, muscle, and/or internal organs in areas of previous radiation exposure after administration of an inciting chemotherapeutic agent, like gemcitabine. Reaction onset ranges from days to months after offending agent exposure. The majority of cases involve a cutaneous manifestation. The exact cause of the reaction remains unknown. Management is supportive and includes discontinuation of the drug, pain management, and steroids. There is no way to predict who will develop radiation-recall, but increasing the time interval between conclusion of radiation therapy and initiation of chemotherapy may minimize its occurrence and severity.

Case Description: This is a 54 yo female with recurrent metastatic breast adenocarcinoma. She underrwent bilateral mastectomy, adjuvant chemotherapy with doxorubicin/cyclophosphamide followed by paclitaxel, radiation therapy, and letrozole hormonal therapy. In July 2015 she presented with bony metastases and underwent palliative radiation to the left hip and ribs, right orbit, and right humerus. Gemcitabine/carboplatin was then initiated.

In January 2016 she presented with worsening left hip, buttock, groin, and right arm pain with associated soft tissue swelling, induration, and discoloration. She complained of sharp, pinching pain in these areas, 6/10 at rest, 8/10 with movement. Despite a recent dog bite to the right thigh, she denied fevers or chills. Differential diagnosis included autoimmune reaction, cellulitis, necrotizing fasciitis, DVT, paraneoplastic syndrome, or compartment syndrome.

WBC was 2.3, CRP 26.5, and ESR 62. Cultures were negative for infection. Ultrasound was negative for DVT. Imaging revealed extensive interstitial edema and myositis with no evidence of abscess formation. The anatomical distribution of findings matched prior irradiated areas. Left gluteus maximus muscle biospy was consistent with gemcitabine-induced myositis.

She was treated with morphine, ketorolac, and dexamethasone with notable improvement.

Conclusion: Although uncommon, this case is an example of radiation-recall triggered by administration of gemcitabine.

Challenges of the Transition: A Case of Noncompliance in an Adult with Congenital Heart Disease (C939)

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Objectives

- Identify common challenges of the transition period into adulthood for patients with congenital heart disease.
- Describe the importance of a successful transition on the development of emerging autonomy.
- Identify opportunities to incorporate early palliative medicine into transitional care for patients with congenital heart disease.

Background: There are over one million adults living with congenital heart disease (CHD) in the United States who must transition from pediatric to adult-focused medical care. This transition is challenging. Successful transition leads to effective communication, independent self-care, and informed decision-making. Yet, fifty percent of parents express apprehension about the transition and struggle with their new role as secondary support. Challenges with emerging autonomy in the patient-parent relationship lead to ineffective transition, lapses in medical care, and patient noncompliance. Incorporation of a Palliative Care team offers increased informed decision-making and support for patient and family that foster successful transition in CHD patients.

Case Description: A 50 year-old male with history of transposition of the great arteries status-post childhood Mustard procedure was followed at an adult CHD clinic. His mother attended all appointments. After multiple readmissions for heart failure exacerbations, he underwent evaluation for a left ventricular assist device and heart transplant. He was deemed ineligible due to medication noncompliance and psychosocial concerns. The Pediatric Palliative Care (PPC) team was consulted to discuss goals of care and provide support. Initially, the patient exhibited poor insight about and frustration with his transplant ineligibility. After multiple discussions, he revealed poor understanding of his illness, his discomfort in asking clarifying questions, and his pattern of having his mother lead all medical discussions. The PPC team facilitated increased insight about his lack of autonomy and fostered self-advocacy. Ultimately, he advocated for a transfer to another institution to continue pursuing transplant.

Conclusion: A successful transition to adulthood in CHD requires partnership between a self-advocating and autonomous patient and providers. An interdisciplinary Palliative Care team encourages the development of this autonomy and facilitates these collaborative goals. In CHD patients, incorporation of a Palliative Care team into the process may improve transition success and quality of life

Mind, Body, and Spirit: Balancing Treatment and Consideration of Mental Illness in an Adolescent Patient with Life-limiting Disease (C940)

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Objectives

- Describe the impact of mood disorder on a patient's experience of pain
- Identify interdisciplinary strategies for the management of complex pain in a patient with underlying mental health diagnoses
- Demonstrate the utility of evaluating medical decision-making capacity and assent to care in adolescents who wish to participate in end-of-life care planning

Background: Pre-morbid mental health disorders can significantly impact a patient's experience of a life-limiting physical disease. Managing total pain in a patient with mental illness requires an approach that addresses the physiologic processes at hand as well as psychosocial, spiritual, and existential elements of distress. This is further complicated in pediatric patients, where goals of care and medical decisions are shaped within the context of their family.

Case Description: The patient is a 17 year old female with a history of depression and anxiety. She was diagnosed with lymphocytic leiomyositis following a 2-3 year course of gastrointestinal symptoms thought to be psychosomatic in etiology. This condition resulted in intestinal failure, multiple admissions, TPN dependence, and refractory abdominal pain. A comprehensive care plan was established through collaboration between the pediatric palliative care team, gastroenterology, chronic pain service, and psychiatry. This allowed the patient to achieve periods of comfort and medical stability, which periodically waxed and waned in relation to flares in her anxiety and depression. Her mental illness presented particular challenges in coping and adherence to proposed treatment plans.

As the patient's disease progressed and treatment options were exhausted, her pain grew intolerable. The patient began to identify a goal to be free of suffering. Once her decision-making capacity was ascertained, with parental consent, she elected to pursue a medical plan to terminate artificial hydration-nutrition and transition to hospice care for the remainder of her life.

Conclusion: The concurrent presence of mental illness in life-threatening disease adds a degree of complexity to pain and symptom management that requires careful consideration and an interdisciplinary management approach. Pediatric patients with mental health challenges should be assessed to determine their ability to assent to care and engage in medical decision-making so that end of life care planning takes their goals and wishes into account.

The Power of the Proactive Palliative Care Provider (C941)

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Objectives

- Outline a typical comprehensive value-focused care plan for pain
- Recognize that care options for patients may be influenced by health care professionals' biases associated with palliative care involvement
- Understand when it is appropriate for any member of the interdisciplinary to advocate for goal and value aligned interventions

Background: While much of the benchmark literature suggests that palliative care improves QOL and potentially extends life through less aggressive care (1), there is some evidence that palliative care improves outcomes with goal- and value-aligned aggressive care (2). This case is an example of where "less is more" is potentially biasedly assigned and where palliative care advocates for appropriately aggressive care.

Case Description: A 66-year-old male living independently with metastatic prostate cancer with bony metastases to the sacrum s/p radiation therapy was admitted for pain crisis to medicine with palliative care consultation. Despite initial aggressive opioid titration with dose-limiting neurotoxicity, opiate rotation (including methadone), additional adjuvants (GABA-agonist, SNRI, steroids), and ketamine drip, his pain remained poorly controlled. While the differential for his poorly controlled pain included total pain syndrome, our team advocated for repeat imaging of his spine and sacrum as his pain did not fully fit this syndrome. Imaging revealed new thoracic lesions causing cord compression. At the urging of our team, neurosurgery was consulted but radiation therapy alone was recommended. We proactively shared our knowledge of the literature (3) that showed patients retained and regained functionality for longer and more often respectively with surgical decompression plus radiotherapy vs radiotherapy alone. Shortly after this discussion, the plan was changed and he had successful debulking on HD13. Postoperatively, his opioid needs decreased dramatically (<5% of peak MEDD) and he was able to ambulate again with a walker. He was discharged to rehab 3 days postoperatively with a stable pain regimen and expectation of near-full recovery.

Conclusion: As our medical system moves toward a value-focused paradigm, the new status quo may become a bias away from certain therapies and interventions. Whereas historically palliative care has generally needed to advocate for less intervention, there may be a growing role to instead advocate for more.

Ask-Assess-Act: Suicide in Advanced Cancer (C942)

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Objectives

- Describe a case of suicide in a patient with advanced cancer.
- Discuss the evaluation of suicidality in the palliative care setting.
- Identify strategies to manage patients expressing suicidal ideation.

Background: Patients who suffer from chronic or advanced diseases have an increased risk for suicide. There is a paucity of research regarding suicide in the “terminally ill” patients. However, patients with cancer have nearly twice the incidence of suicide as compared to the general population. Hence, acknowledging the risk and addressing the issue of suicide in the palliative care population has the potential to improve outcomes.

Case Description: Mr. Z is a 70 year old man with a history of adenocarcinoma at the rectosigmoid junction. He underwent colectomy with primary anastomosis, but declined adjuvant chemotherapy. Nearly one year after initial diagnosis and resection, surveillance colonoscopy revealed tumor recurrence. He refused surgical intervention after previously witnessing his mother’s death from colon cancer. He received chemoradiation, which was discontinued due to a decline in his functional status and symptom burden. He was referred to palliative medicine for symptom management and goals of care discussion. During his initial office visit with palliative medicine, he reported experiencing worsening abdominal pain, nausea, and emesis. He was diagnosed with malignant bowel obstruction. At the urging of his family, he reluctantly agreed to hospitalization. He was started on opioids, anti-emetics, and gastric decompression. Later that same night, he told the physician, "It sucks here. I'm tired of waiting on doctors. I'm leaving. You can't keep me here." He left the hospital against medical advice. The next day he was found dead at home after completing an act of suicide.

Conclusion: Many patients in the palliative care setting possess significant risk factors for suicide. Moreover, although completed suicide is rare in this population, suicidal ideation is common. Screening for depression and early palliative medicine referral could be strategies to address the psychological impact of burdensome symptoms. This presentation will discuss the evaluation and management of suicidality in the palliative care setting.

The Pathologization of Existential Distress in a Terminally Ill Adolescent and its Impact on End-of-Life Decision-Making (C943)

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Objectives

- Understand and describe the current consensus on ethical decision-making with respect to the cessation of artificial nutrition and hydration in pediatric patients.
- Outline the current literature available on the diagnosis of psychiatric illness in terminally ill patients, its differentiation from a reasonable response to suffering, and its impact on end-of-life decision-making in pediatric patients.
- Based on available literature and lessons learned in this case study, outline ways in which an interdisciplinary team can come together with patients and their parents in shared decision-making when the need for ethically-challenging end-of-life decisions in pediatric patients arise.

Background: There is broad consensus that cessation of artificial nutrition and hydration (ANH) in pediatric patients is ethically permissible under certain circumstances (when ANH fails to provide a net benefit to the child.) Here, we present a case in which an adolescent’s parents request withdrawal of ANH in the setting of progressive neurologic illness causing significant physical and existential suffering, but their request is denied because of the patient’s longstanding depression and expressed wish for his life to end.

Case Description: The patient was a 16-year-old male with a seven-year history of progressive neurologic decline secondary to an undefined movement disorder with similarities to Juvenile Parkinson’s Disorder. Symptoms had progressed to severe dystonia with the inability to walk, talk, or eat orally. For three years, he had expressed a consistent desire for his life to end. He was brought into the hospital for increasing aggression, particularly surrounding gastrostomy feedings. Given his ongoing suffering, his parents requested to withdraw ANH and return home with hospice. Pediatric Psychiatry felt strongly that his depression and “suicidality” had never been adequately treated, and that he would benefit from inpatient psychiatric treatment. An Ethics consultation yielded an opinion that it was not ethically permissible to withdraw ANH until the patient’s mental illness was more aggressively treated. His parents suspected that psychiatric treatment would not be effective, but agreed to an inpatient placement given the Ethics opinion.

Conclusion: This case highlights the lack of precedence in the literature to support decision-making about withdrawal of ANH in the setting of terminal physical illness with co-existing mental illness in pediatric patients. It also questions the tendency of medical teams to pathologize existential suffering in the terminally ill and consequently to restrict the autonomy of patients and decision-makers to weigh the burdens and benefits of psychiatric treatment as they would other medical interventions.

Challenges to Pain Management in a Cancer Patient at End of Life (C944)

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Objectives

- Recognize the presence of existential distress at end-of-life (EOL).
- Incorporate therapy for existential distress into pain management strategies at end-of-life (EOL).

Background: Complex pain management at End-of-Life (EOL) requires a multi-faceted approach. Opioids and adjuvant therapies remain the pharmacologic mainstays for severe cancer pain. In the presence of psycho-social or spiritual distress, however, relief of suffering will require more than medication.

Case Description: A 40 years old woman was followed by the Palliative Care team for severe pain related to progressive stage IV Ovarian Adenocarcinoma. Over the course of multiple hospitalizations for worsening abdominal pain, nausea and vomiting, she was found to have disease progression. She had a high opioid requirement despite the addition of adjuvant therapy and treatments for anxiety and depression. During her last hospitalization, she decided to transition to Hospice care and was transferred to an inpatient Hospice facility where a Hydromorphone patient-controlled analgesia (PCA) infusion pump was initiated. Several different medications for management of pain and mood disorder were considered including methadone, dexamethasone and ketamine, but all offered minimal relief. Meanwhile, her hydromorphone requirement escalated to several hundred milligrams per day, but her use of as needed doses varied widely. The patient shared her concerns regarding her family in Puerto Rico during the recent hurricane and appeared to gain the greatest relief while working with the Expressive therapist. She would spend her afternoons in the art therapy room designing legacy items including memory boxes personalized for her nieces and nephews. During these sessions she would often go hours without using her PCA button compared to up to 90 PCA doses in 24 hours. Her surrogate was a nurse and was impressed by the relief that these projects gave her and grateful for the impact on her quality of life.

Conclusion: A multi-disciplinary approach to pain management at EOL, including innovative modalities like expressive therapy, which engage the mind, body and spirit, can relieve suffering and improve quality of life.

Just-in-Time Interdisciplinary Education for Hospice Care of VAD Patients (C945)

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Objectives

- Describe an approach to just-in-time interdisciplinary education for hospice care of VAD patients
- List elements of interdisciplinary hospice care of VAD patients
- Summarize clinical and ethical challenges in end-of-life care of VAD patients

Background: Ventricular-assist devices (VADs) offer end-stage heart failure patients a chance to live longer and better. The number of VAD patients is growing as the population ages and the technology improves. As a result, there is increasing need for hospice care for VAD patients, whether they die from cardiac or non-cardiac causes. Unfortunately, many hospices do not accept patients with VADs because of unfamiliarity with this technology. In early 2017, there were no agencies in our metropolitan area providing hospice services for VAD patients.

Case Description: Mr. S was a 61-year-old man with a VAD that was implanted in 2011. In 2016, Mr. S was diagnosed with colorectal adenocarcinoma with liver metastases for which he underwent surgical resection. He suffered many complications during post-op recovery; in January 2017 he was hospitalized for a drive-line infection and bacteremia. During that hospital stay, Mr. S opted for comfort care with the goal of returning home for as long as possible. The only chance of Mr. S's going home rested on our hospice agency's agreeing to accept Mr. S. In less than two weeks in February 2017, our interdisciplinary hospice staff partnered with the VAD team to develop the competencies needed to care for Mr. S. Mr. S was stabilized at our inpatient hospice and then spent several weeks on hospice at home before symptoms required his return to the inpatient hospice unit. At that time, Mr. S's family chose to turn off the VAD; Mr. S's death followed quickly and peacefully. Our agency now routinely accepts VAD patients who require hospice care.

Conclusion: It is important that hospice agencies develop the competencies to support VAD patients and their families who seek hospice care. Despite the complexity of VAD technology, interdisciplinary education of hospice staff can be accomplished quickly and effectively.

When the Dying Patient has Just Given Birth: Navigating EOL care for Mom while Baby is in the NICU (C946)

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Karina Reynolds, MD, Penn State, Hershey, PA

Objectives

- discuss risk factors for unchecked positive counter-transference with a patient and their family
- identify signs suggestive of over-connectedness and boundary blurring
- argue that even well-intentioned preferential treatment / special considerations have harms

Background: Typically discussed in Psychiatry, counter-transference, or a provider's unconscious response to a patient, may play a role in clinical encounters throughout medicine. With its emotional and empathic intensity, Palliative Care may be especially susceptible to its sway. Below, we describe a case where an entire hospital became overly connected to the suffering of one of its own families.

Case Description: An otherwise-healthy 36yo pediatric speech therapist, at 32w pregnant, presented with lower extremity pain and neurologic deficits found to from aggressive anaplastic astrocytoma and diffuse leptomeningeal encasement. Despite being at a hospital without an Obstetrics ward, she was urgently taken to C-section to facilitate (ultimately unsuccessful) spinal surgery. With baby still in the NICU and mom now with a grim prognosis, the combined adult and Pediatrics staffs rallied together to provide a multitude of special considerations for this relatable, graceful family. Hospital lines were literally crossed daily as baby was removed from the NICU (against normal policy) and trekked the half-mile between the two free-standing, physically-connected hospitals for skin-to-skin time. Special treatment like this came at a price, however, to all involved. Mom, under Jeff's care on the Palliative Care service but remaining on the Neuro unit, suffered physically without expert symptom-management nursing care and had her HIPAA rights violated until she died. Baby, under Karina's care in the NICU, risked hospital-acquired infections like mom's neighbor with disseminated VZV and had a host of issues only explainable by undue newborn stress.

Conclusion: By the very nature of serious illness, the professional boundaries in HPM are at risk to be blurred. In this case, we will explore how and why staff was drawn in, lines were crossed with the best intentions, but how, ultimately, preferential treatment led to many additional harms.

Check Your Bias: Cognitive Bias Affecting Decision Making in Critical Illness (C947)

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Objectives

- Describe various types of cognitive bias commonly seen in serious illness.
- Recognize the influence of sunk cost bias in a case of surrogate decision making.
- Demonstrate a framework for addressing cognitive bias in serious illness.

Background: Cognitive biases are systematic patterns of deviation from rationality in judgement (Haselton 2005). Research in Behavioral Psychology has explored the significance of cognitive bias in many day-to-day decisions, however investigation into these biases among medical decisions is sparse. One example is sunk cost bias, which is the tendency to pursue a course of action after it has proved suboptimal because physical, emotional, or financial resources have already been invested (Thaler 1980).

Case Description: RM was an 82 year old gentleman who presented to the hospital with chest pain, and was found to have heart failure requiring CABG. He initially declined surgery because of the required prolonged rehabilitation. He wished to be discharged home with coronary stents, but his family convinced him to proceed with the surgery. His perioperative period was complicated by a large left MCA stroke, resulting in coma. He required tracheostomy and PEG placement, and although his family agreed that “He would never want to live like that,” they wondered, “Why not pursue tracheostomy and PEG, since we’ve come this far?” This example of sunk cost bias, focused on past investment, instead of how that decision would contradict his values. The consulting palliative care team explored the family’s emotions and uncovered an immense sense of guilt they harbored because they convinced him to pursue the CABG. Once this emotion was openly addressed, his family was able to focus on RM's values and they decided against any surgical intervention.

Conclusion: We discovered the importance of recognizing cognitive biases and their potential role in decision making in critical illness. One effective method to address cognitive biases in similar cases is to explore the emotional aspects driving the decision making process, and to re-focus surrogate decision makers on the patient’s known values.

Caring for Zebras: The Role of Palliative Care in Hospitalized Patients with Rare Disease (C948)

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Objectives

- Identify unique needs presented by patients with rare disease.
- Explore the power of patient narrative to inform medical care.
- Recognize the critical role palliative care teams can play in advocating for patients with rare diseases.

Background: The Genetic and Rare Diseases Information Center (GARD) at the NIH defines rare disease in the United States as one that effects less than 200,000 people. Approximately 25-30 million Americans (7-10% of the US population) live with a rare disease. However, little is known about the role of palliative care in this population.

Case Description: Ms. A. is a 23 year old with PMH significant for GAD positive antibody syndrome consistent with Stiff Person Syndrome (SPS), a disease with 1:1,000,000 prevalence, as well as depression and anxiety. She was admitted, intubated, due to intractable seizure-like activity and inability to protect her airway. Initially treated for status epilepticus, an EEG on HD #2 was inconsistent with epileptiform activity and subsequent interventions addressed her SPS. Palliative Care was consulted on HD#11 for assistance with complex medical decision making, psychosocial support and prognostication. Ultimately, she received a tracheostomy and PEG and discharged directly from the ICU to an LTAC for vent-weaning. She was readmitted 4 days later with ongoing seizure-like episodes and a new complaint of abdominal pain. During her 2nd prolonged admission, many specialists and support services were involved, often with conflicting messages regarding diagnosis, treatment and prognosis which resulted in patient/family frustration and feelings of not being heard. The Palliative team provided continuity across admissions, listened to the patient's hopes, worries and fears, and discovered the narrative of the patient's illness. Narrative discovery enabled the palliative team to unify medical team messages, support the patient/family, and advocate for well-coordinated multi-disciplinary care and expert opinions. Due to Palliative advocacy a leading SPS specialist was consulted which lead to critical changes in the treatment plan with ongoing clinical improvement and improved patient-provider relationships.

Conclusion: Palliative teams can advocate for persons with rare disease by utilizing narrative to facilitate multi-disciplinary communication and help guide medical treatment.

Intractable Polyarticular Joint Pain: Immunotherapy-Induced Inflammatory Arthritis (C949)

Yu-Lin Lee, MD, Duke University Hospital, Durham, NC

Objectives

- Describe a case of Nivolumab-induced inflammatory arthritis
- Recognize the increasing need for multi-disciplinary collaboration between oncology, palliative care and rheumatology

Background: Immune checkpoint inhibitors (ICIs) that target cytotoxic T-lymphocyte associated protein-4 (CTLA-4) and programmed cell death protein-1 (PD-1) are established immunotherapies for solid and hematological malignancies. Nivolumab is a human IgG4 monoclonal antibody with high affinity for the PD-1 receptor and is used in advanced malignancies. Nivolumab and other ICIs may trigger immune-related adverse events (IRAEs) such as arthritis, which can lead to pain and severe impairment of quality of life.

Case Description: A 77-year-old man with stage IV non-small cell lung cancer was admitted for worsening and intractable polyarticular joint pain leading to weakness, difficulty ambulating, functional decline as well as psychological distress. He had been treated with Nivolumab from February to June 2017, but this was discontinued due to excessive fatigue. He then presented in October 2017 with right hand pain and swelling and left shoulder and left knee joint stiffness and swelling leading to a new and increasing opioid requirement for pain management. He had evidence of synovitis on exam. Labs were notable for ESR of 66. PET/CT was performed and did not show any signs of cancer progression, but revealed diffuse symmetric FDG uptake at multiple bilateral large joints consistent with inflammatory arthropathy. Both palliative care and rheumatology were consulted. Given suspicion for inflammatory arthritis secondary to Nivolumab, the patient was started on Prednisone 40mg daily. He had rapid and significant improvement in joint symptoms allowing for dramatic recovery in mobility and function. He was discharged on a prolonged steroid taper.

Conclusion: Inflammatory arthritis can be due to immunotherapy with checkpoint inhibitors such as Nivolumab. In general, management of IRAEs includes interruption or discontinuation of the offending agent and use of tapering doses of corticosteroids or other immunomodulatory drugs. Increased awareness of IRAEs is important for palliative care providers given the expanding use of immunotherapy in cancer patients.

When the "Blue Book" is Not Enough: Managing Emotional Distress in Families and Staff Members When Patients Linger (C950)

Martha Leonard, MD, Vanderbilt University Medical Center, Nashville, TN

Objectives

- To identify the variety of emotional responses, some of which are maladaptive coping strategies, family members caring for the actively dying patient can experience when patients have extended prognosis in the acute palliative care unit.
- To recognize communication techniques that support both the family and non-palliative care hospital staff involved in the care of the imminently dying patients.
- To identify methods for discussing prognosis in the imminently dying patient.

Background: Within acute palliative care units, the family's emotional distress is sometimes worsened by the unpredictable prognosis of actively dying patients, leading to second guessing of previous end of life care decisions. Non-palliative care providers struggle with communication in these situations as family members can be emotionally labile and have maladaptive coping skills for the distress associated with this specific grief.

Case Description: Patient with history of squamous cell carcinoma of tongue s/p resection with dysphagia and recurrent aspiration pneumonia was admitted to the acute hospital with sepsis. Palliative care team (PCT) was consulted and discussed goals of care with his daughter who stated that he would find his new quality of life unacceptable. He was transitioned to acute hospice care and transferred to the palliative care unit (PCU). He then began to demonstrate clinical stability, living an additional 20 days despite initial assessments of probable imminent death. Various providers were challenged by the emotional distress of the patient's daughter as she began to question previous assessments of prognosis. Medical team residents and nursing staff were frequently interrogated by the family members about life expectancy assessments. The patient's daughter and various providers began to question end of life decisions made prior to transition to comfort care as the patient's clinical decline and dying process was protracted. The PCT was crucial for assisting various staff and family members in managing emotional distress by using debriefing techniques, boundary setting, promoting team cohesiveness, and consistent messaging.

Conclusion: The Palliative care team was instrumental in providing communication interventions for family and staff members when a patient experienced an extended dying experience within an acute palliative care unit. Communication interventions that were effective included debriefing techniques, boundary setting, promoting team cohesiveness, and consistent messaging.

ICU to Island: Coordination of Care for a Complex Patient with Uncertain Prognosis to a Resource Limited Setting (C951)

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Objectives

- Recognize the challenges of complex care coordination to resource limited settings.
- Identify ways for interdisciplinary palliative care teams to maximize resources and minimize risk in complex care coordination.

Background: A hallmark of palliative care in practice is care coordination for complex patients. This can be a very difficult task when the patient lives in a resource limited setting. When prognosis is uncertain, transfer to a medically underserved area may also confer the risk of shortened survival potential. Yet, when a patient and family’s priority is to be home at all costs, the palliative care team can play a critical role in helping mitigate the risks and achieve a safe transition.

Case Description: A 17 year old girl with a history of acute myeloid leukemia was 5 years post bone marrow transplant with complications of end stage chronic renal failure and bronchiolitis obliterans leading to pulmonary failure. The patient had an acute sepsis event with steep clinical decline which left her ventilator and dialysis dependent and, due to her high level of complexity, was unable to leave the ICU for a prolonged period of time. The patient was cognitively intact and aware of her condition and repeatedly stated that she wanted to return to her home on a Caribbean Island. While her long term prognosis was poor, with continued pulmonary and renal support she could live for some time and enjoy a reasonable quality of life, enjoying her activities and visiting with friends and family. The palliative care team, using interdisciplinary collaboration, took on the herculean task of coordinating transfer and home based services for this patient to enable her to return to her Island home including, support services, medical equipment procurement, subspecialty referrals and trouble-shooting of a myriad of details.

Conclusion: This case presentation will illustrate the ways in which interdisciplinary palliative care teams can maximize resources and minimize risk when undertaking care coordination for complex patients, especially in the face of uncertain prognosis and a resource limited home setting.

Reframing our Conceptualization of 'Alleviating Suffering': Early Experiences of Medical Assistance in Dying in a Canadian Hospice Setting (C952)

Warren Lewin, MD, Massachusetts General Hospital, Boston, MA

Objectives

- Describe an approach to supporting patient requests for medical assistance in dying (MAiD) while concurrently receiving palliative care within a hospice setting.
- Recognize and appreciate clinician challenges to providing palliative care simultaneously to patients admitted to hospice who are eligible and confirmed to receive MAiD in the near future.

Background: Kensington hospice is a not-for-profit 10-bed residential hospice located in Toronto, Canada providing care to patients and their families living with serious life-limiting illness. The unit accepts adults with an expected prognosis of less than 3 months. Medical assistance in dying (MAiD) was legalized in Canada in June 2016 and allows a capable adult living with a grievous and irremediable medical condition to request medical assistance to hasten death. Since its legalization, Kensington Hospice has provided concurrent palliative care for 7 patients that have requested and received MAiD. The assessment and provision of MAiD at the hospice is completed through a partnership with a local academic tertiary care centre with an established protocol. A non-palliative care physician carries out the intervention.

Case Description: Ms. A was a 58 year-old retired schoolteacher and devoted mother to 3 young-adult children admitted to our hospice with pain crisis from metastatic breast cancer. After 2 weeks in our hospice her symptoms were well controlled and at that time she requested an evaluation for MAiD eligibility in advance of her natural expected death. Unmet palliative care needs were addressed and despite best supportive care she maintained her wish to be screened for MAiD, and if eligible, for the intervention to be carried out at a time of her choosing. She was referred to our MAiD team for evaluation. 5 weeks later and without any signs of imminent death, she received MAiD and died in our hospice.

Conclusion: As a palliative care provider I struggle with how to provide simultaneous palliative care to patients awaiting MAiD. The patient population and skill set somehow feels different from the skills I acquired in Fellowship. Demographic data of patients receiving MAiD, our affiliated academic hospital's evaluation and intervention policies, and lessons learned from our hospice's multidisciplinary teams early unique experiences will be presented.

Crossing Borders: Challenges Faced While Transferring Patients Across State Lines For Comfort Care at the End of Life (C953)

John Liantonio, MD, Jefferson University Hospital, Philadelphia, PA
Nidhi Shah, MD, Montefiore Medical Center, Bronx, NY

Objectives

- Understand challenges faced when transitioning patients across state lines
- Discuss reasonable solutions to common problems when transitioning patients

Background: In today's world it is not uncommon for families to live geographically separate lives. This creates a unique challenge for patients at the end of life, making it difficult to find care for patients outside of their home state or country to be closer to friends and family. We discuss potential challenges and ways to navigate the healthcare system to respect a dying patient's wishes.

Case Description: A 39 y/o Hispanic female with metastatic rectal adenocarcinoma was admitted to Jefferson Hospital in Philadelphia with recurrent small bowel obstruction. During the course of a prolonged hospitalization, the patient decompensated and was deemed to be inappropriate for further cancer therapies. Unfortunately, her children were living in New York with her family and unable to come to Philadelphia due to logistical and social factors. After a long discussion with the palliative care and oncology teams, the patient elected for transfer to an inpatient hospice unit in NYC to be closer to her children and other immediate family at end of life. Transfer was arranged from Jefferson to Montefiore Hospital for admission to inpatient hospice unit. However, the hospice agency contracted with Montefiore did not accept the patient's insurance. After extensive discussions with finance centers across the organizations, the decision was made to do a one-time hospice contract with patient's insurance and agree on an exception involving transportation were arranged in order to help fulfill the patient's wish. The patient died in hospice care in NYC surrounded by her family.

Conclusion: Getting patients to their preferred geographic location of care is often a challenging one. Palliative care providers must possess the necessary skills involved in navigating barriers. We will discuss financial and other logistical challenges to meeting these goals of care and highlight areas for improvement to help achieve patient's wishes at the end of life.

Rehabilitation at the End of Life: Identifying Appropriate Patients for Acute Inpatient Rehab as a Transition Point to Home Hospice (C954)

John Liantonio, MD, Jefferson University Hospital, Philadelphia, PA
Nick Freedman, DO, Jefferson University Hospital, Philadelphia, PA
Barbara Browne, MD, Magee Rehab Hospital, Philadelphia, PA

Objectives

- Identify patients who are appropriate for discharge from hospital to acute inpatient rehab prior to transition to home hospice.
- Understanding the role of physiatry in end of life care.

Background: Patients with terminal illness are often discharged home with hospice with impaired function and mobility leading to high levels of caregiver burden. Identifying patients with potential to make meaningful improvements in function and independence during a short rehab stay may reduce that burden and improve quality of life for patients and their caregivers.

Case Description: The patient is a 74-year-old gentleman with past medical history of hypertension who presented to the acute care hospital with shortness of breath. He was subsequently diagnosed with heart failure and a pleural effusion in the setting of widely metastatic colon cancer. During his stay, caregivers noted left sided visual deficits. He was found to have a posterior cerebral artery territory stroke. Following this he was admitted to the stroke service in our rehabilitation hospital. On admission, he required minimal (25% effort provided by caregiver) to moderate (50% effort provided by caregiver) assistance for mobility and activities of daily living function. He improved to contact guard (stabilization for balance) to supervision level (no physical assistance) on discharge. A family meeting was conducted with the interdisciplinary rehab team as well as palliative care to discuss his progress, goals of care and disposition. During this family meeting hospice was discussed. His family participated in training and he was ultimately discharged home with home hospice care.

Conclusion: Palliative Care providers are indeed experts on disposition planning for patients with terminal illness. We often consider time at home with family as essential given short life expectancy. The goal of this presentation is to discuss collaboration with our Physiatry colleagues to consider which patients are appropriate for a SHORT term use of Acute Inpatient Rehabilitation to help to reduce caregiver burden and improve quality of life while under the care of hospice at home.

Calchiphy…What? Calciphylaxis: An Uncommon Complication of End-stage Renal Disease (C955)

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Teresa Head, RN BSN CHPN, Kaiser Permanente, Richmond, CA
Gail Bigelow, MSW LCSW, Kaiser Permanente, Richmond, CA

Objectives

- Understand the natural history of calciphylaxis.
- Recognize calciphylaxis as a significant, uncommon complication of end-stage renal disease with high morbidity and mortality, which can affect advance care planning discussions.
- Identify Palliative Care interventions, which support patients with calciphylaxis, as well as their health care providers.

Background: Calciphylaxis is an unusual and difficult to manage complication of end-stage renal disease. This case describes multiple Palliative Care interventions to support health care staff, a patient with calciphylaxis and their family.

Case Description: An 80 year old woman, with a history of delusional disorder, chronic venothromboembolic disease on warfarin anticoagulation and end-stage renal disease on hemodialysis complicated by painful calciphylaxis wounds, was admitted to our hospital for altered mental status, which was thought to be due to opioids and inadequate dialysis. Palliative Care consultation was requested it was found that she had only attended 3 hemodialysis sessions in the month prior to admission. Prior to admission she was using increasing amounts of hydrocodone. Pain control improved with methadone initiation and discontinuation of hydrocodone. Education about calciphylaxis to health care staff involved in the patient's care improved wound care. A family meeting revealed that calciphylaxis wound pain was a significant barrier to patient's regular dialysis attendance. Goals of care were discussed, clarified and then discussed again after a repeat admission for sepsis one month later, at which time she was transferred to an end-of-life skilled nursing facility bed and died soon after transfer.

Conclusion: Calciphylaxis often predicts early mortality in patients with end-stage renal disease. Palliative Care interventions, such as symptom management and advance care planning, can provide support and assistance to families and patients living with this illness. Additionally, Palliative Care education to health care staff regarding calciphylaxis can improve staff interventions.

All Worked Up? Challenges of Identifying Extra-pyramidal Symptoms (EPS) in a Patient with Agitated Delirium (C956)

Jessica Lynch, MD, Massachusetts General Hospital, Boston, MA
Justin Sanders, MD MSC, Dana-Farber Cancer Institute, Boston, MA

Objectives

- Recognize Extra Pyramidal Symptoms (EPS) as among the causes of agitation in patients with delirium being treated with neuroleptic medications.
- Perform a thorough search for other causes of agitation, as consistent with goals of care, and treat appropriately.

Background: Among the many causes of agitation in the inpatient setting are discontinuation of dependence-inducing substances (i.e. medication or alcohol withdrawal), and addition of new medications, as is the case in neuroleptic-induced EPS.

Case Description: Mr. G, an 89 year-old male with benign prostatic hyperplasia, presented to our hospital with 3 weeks of increasing confusion and 24 hours of vomiting. CT chest and abdomen showed an incarcerated para-esophageal hernia with gastric perforation. Despite correction of his metabolic abnormalities and empiric therapy for sepsis, his confusion and agitation worsened and he developed visual hallucinations of bugs crawling on his bed. Palliative care recommended haloperidol and he received 17.5mg of IV haloperidol in 24 hours. He subsequently developed stiffness, cogwheel rigidity, tremors and restlessness characterized by repeated lower extremity movement. Haloperidol was discontinued, chlorpromazine added, and 6 days after admission he developed uncontrollable shaking and rigidity. Further social history revealed daily alcohol use. Given the proximity of symptom development after administration of escalating doses of neuroleptics and a timeline outside the window consistent with alcohol withdrawal, drug-related EPS was felt to be present. His symptoms improved following treatment with propranolol, lorazepam, and benztropine.

Conclusion: EPS is an under-recognized cause of agitation in the setting of delirium and may be caused by the very medications we use for treatment. EPS can manifest as drug-induced parkinsonism (DIP), akathisia, dystonia, tremor or tardive dyskinesia. We will review the classic symptom cluster of EPS and its differential diagnosis, and will discuss how palliative care teams, who are familiar both with the manifestations of agitated delirium and the complications of associated pharmacologic treatment, can play a crucial role in identifying EPS and advocating for a thorough evaluation of all causes of patient agitation.

Bring on the Slumber Party: Pediatric Palliative Team Elicits Lack of Prognostic Understanding, Paving Way for a Novel Interventional Pain Procedure (C957)

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Kristin Drouin, MSW LCSW, Dana-Farber Cancer Institute, Boston, MA
Charles Berde, MD PhD, Children's Hospital Boston, Boston, MA
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Objectives

- Recognize that Pediatric Palliative Care (PPC) teams and Anesthesia-Pain (A-P) teams possess both shared and separate skill sets.
- Appreciate that close collaboration of Pediatric Palliative Care (PPC) teams and Anesthesia-Pain (A-P) teams, while understanding the strengths of each other's unique skill sets, can improve patient care.

Background: Pediatric Palliative Care (PPC) and Anesthesia-Pain (A-P) teams both possess pain management expertise. When these teams collaborate and utilize skills unique to their subspecialty, innovative approaches to care can develop.

Case Description: ZM is a 13-year-old girl with an advanced unresectable pelvic rabdomyosarcoma that has eroded through vagina, perinium and rectum. She has had a colostomy and cystostomy, and has been hospitalized for months undergoing regular vaginal washouts and wound care under anesthesia. Her chance of a cure becomes vanishingly small as disease progresses despite new chemotherapies. She is receiving a multi-faceted oral pain medication regimen, but despite this remains bed-bound.

A-P offers ZM interventional pain control options, including neurolysis of the superior hypogastric plexus and intrathecal neurolysis of sacral nerve roots that would numb the pelvic floor indefinitely. Unclear about life expectancy, ZM's family initially declines the procedure.

PPC is consulted to help elicit goals of care. PPC learns that ZM's family does not know if their daughter's life expectancy is months, years, or decades. If months, pain control takes priority, their goal to get ZM home to make the most of her remaining time.

PPC facilitates a family meeting in which oncology confirms that prognosis is less than 6 months. With this information, ZM and her family proceed with the neurolytic intervention, as it now meets their goals of care. Soon after, ZM is much more comfortable and gets out of bed for the first time in months. Her family now prepares for ZM's homecoming, for reunion with friends and pets, and a long-awaited slumber party.

Conclusion: PPC and A-P specialists have both shared and unique skill-sets. Their collaborative efforts can be synergistic. Communication facilitated by PPC can promote prognostic understanding, creating space for A-P teams to deploy pain management interventions that best meet a family's goals of care.

An Ethical Crossroad: The Surrogate Who Refuses Pain Medications for the Patient Without Decisional Capacity on the Basis of Spirituality or Religion (C958)

Sherine Mathew, MD MS, Southern Illinois University School of Medicine, Springfield, IL
Andrew Varney, MD, SIU School of Medicine, Springfield, IL

Objectives

- Identify key ethical considerations that arise in the care of a patient without decisional capacity when the surrogate refuses pain medications on the basis of spirituality or religion.
- Determine a guiding approach to the care of a patient without decisional capacity when the surrogate refuses pain medications on the basis of spirituality or religion.

Background: Although the provision and refusal of pain medications are widely accepted through the ethics of beneficence and respect for autonomy, a dilemma arises when a surrogate refuses pain medications for a suffering patient due to spiritual or religious beliefs.

Case Description: Mrs. R is a 78 year-old female with a history of a nonfunctional pancreatic neuroendocrine tumor (NPNET) and many comorbidities who was admitted for worsening multi-organ dysfunction and progressive functional decline. The patient lacked decisional capacity before presentation. Unlike prior admissions, the patient appeared in pain. The pain was suspected secondary to metastatic NPNET. Her husband was the surrogate decision-maker. Mr. R held strong spiritual and religious beliefs, informing his firm insistence that the patient should not receive pain medications. He acknowledged the patient's pain, but stated that “pain is how the body and soul interact” and “she needs pain to feel better.” He felt his fasting and prayer for her were actively "curing her," describing “if a person is righteous, prayer will help with healing, and healing will help her pain.” He identified with a religion he said they shared and felt his decisions aligned with her known preferences. Their daughter, a nurse, did not share Mr. R's values and felt the patient wanted pain relief. Ethics, Palliative Care, and Pastoral Care were consulted early. Following discussion exploring the patient’s family dynamics, cultural background, and spiritual/religious beliefs, Mr. R was felt to lack decision-making capacity and the patient’s daughter became surrogate decision-maker. The patient received pain medications and was discharged to a hospice facility.

Conclusion: Evidence increasingly supports a shift away from the traditional normative heirarchy of standards (known wishes, substituted judgment, patients’ best interests) to assess surrogate decisional capacity, towards a dynamic approach that includes cultural background, family dynamics, and religious/spiritual beliefs. Questioning the surrogate's decisional capacity remains fundamental.

What Put the "Special" in Special K? Pain Relief, Mood Stabilizer, or Both? (C959)

Mary Lynn McPherson, PharmD MA MDE BCPS CPE, University of Maryland School of Pharmacy, Baltimore, MD
Ana Sanchez, MD HMDC, Community Hospice and Palliative Care, Jacksonville, FL

Objectives

- Describe the pharmacologic implications of adding ketamine to the opioid regimen of a patient with advanced illness.
- Describe the dual therapeutic impact of ketamine on difficult-to-control pain, and depression/psychosocial distress in a patient with advanced illness.

Background: A 37 year old woman diagnosed with cervical cancer in 2014 was referred to hospice in May 2016. Primary issues on admission were poorly controlled pain, and extreme anxiety/depression.

Case Description: Patient was admitted to hospice on oxymorphone ER, transdermal fentanyl and diazepam twice daily. Patient was switched to hydromorphone 2 mg/hour continuous infusion. Patient reported erratic pain severity, and hydromorphone dose was escalated per patient report of pain. One week after admission to hospice, methadone was added to hydromorphone, initially with great success. Over the next five month, the hydromorphone and methadone were titrated up, with disparate success. Psychosocial/spiritual team members worked extensively with patient and family during entire admission. By October 2016 the hydromorphone infusion was at 22 mg/hour and methadone was at 40 mg po q8h. Ketamine 20 mg po q6h was added to the regimen. Opioid doses were de-escalated; pain severity dropped to a zero and the patient's affect improved dramatically. She remained comfortable until the time of her death several weeks later.

Conclusion: It is unclear if ketamine had a greater impact on the patient's physical discomfort, or her anxiety/depression. Regardless, this case was a dramatic example of the impact of ketamine, and has taught this team that ketamine may be an effective intervention earlier in the course of events.

Dying on Foreign Soil: How to Provide Humane End-of-Life Care for Unauthorized Immigrants (C960)

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Vyjeyanthi Periyakoil, MD, Stanford University, Palo Alto, CA

Objectives

- Identify cultural and ethnic differences that impact care of seriously ill unauthorized immigrants (UAI).
- List three common problems and obstacles faced by seriously ill UAI and their families.
- Identify three common and easy to implement solutions to promote humane care and support to this vulnerable population.

Background: The Universal Declaration of Human Rights recognizes "the inherent dignity" and "equal and unalienable rights" for all humans to be universally protected, irrespective of race, color, gender, language, religion, political or other opinion, national or social origin, property, birth or other status. Though this includes the right to humane end-of-life care for seriously ill UAI, such care eludes them.

Of the 11.3 million UAI in the U.S., those with unsafe conditions, occupational hazards, lack of routine health-care access, and scarceness of a psychosocial support system are likely to die younger when compared to the rest of the U.S. population. UAI are much more likely to experience diminished health and quality of life, especially as they near end of life. Delayed diagnosis, dependence on acute emergency services for care, and lack of access to primary palliative care and hospice services, all contribute to their overall poorer health-care outcomes.

Case Description: A 50-year-old UAI male initially presented to establish care at a local U.S. safety-net hospital with headaches and blurry vision secondary to fungal meningitis. Over the coming weeks, he developed progressive multiorgan system failure necessitating prolonged hospitalizations. During goals of care discussions, his UAI children expressed desire for their father to die at his home in Mexico, but he was too clinically unstable to tolerate the travel. Otherwise, they wished to pursue transfer to a nursing home with hospice care, which was not financially feasible. He died in the hospital, contrary to his expressed end-of-life wishes.

Conclusion: Regardless of the manner in which care is currently provided for UAI, the current health-care system does little to create a humane system to provide end-of-life care for these vulnerable patients. This presentation provides an overview on end-of-life care for UAI and makes three specific solutions for to providing humane care and support to this susceptible population.

Spiritual Care for Patients and Caregivers in an Embedded Community Based Palliative Oncology Clinic (C961)

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Objectives

- Describe spiritual care integration of Palliative Care Oncology Clinic
- Describe how spiritual aspects of care assist patients and caregivers in coping
- Describe how spiritual aspects of care affect patient and caregiver satisfaction

Background: Spiritual care for patients and caregivers is a vital part of outpatient interdisciplinary palliative care. The focus for this presentation is the evidence based contributions that spiritual care delivers to patients and family for enhanced coping, meaning, and satisfaction with care.

Case Description: A 70 year old female with a history of breast cancer was diagnosed in early 2017 with a unique skin cancer, cutaneous adnexal tumor, on the right upper extremity. The disfiguring cutaneous tumors were treated with chemotherapy; however, the patient poorly tolerated the treatment. Patient showed a distress score of “9” on the validated National Comprehensive Cancer Network Distress (NCCN) tool leading to a high priority referral for spiritual care. An evidence-based structured instrument for assessing and defining spiritual distress was utilized. This was identified hopelessness based on her comments of seeing no value in a life with continued suffering. Spiritual assessment, spiritual goals of care, and spiritual interventions, with outcomes, were charted in the electronic medical record using an evidenced-based template adopted from “Improving the Quality of Spiritual Care as a Dimension of Palliative Care: The Report of the Consensus Conference.”
The patient, with appropriate spiritual intervention and support, was able to pursue further systemic treatment as long as tolerated and then felt well-supported when the time was appropriate for transition into hospice care.

Conclusion: This case demonstrates how an evidence based approach to spiritual care works within an interdisciplinary palliative care team. Spiritual care demonstrates critical support to patients and caregivers that assists with finding meaning, peace, and coping skills that enhance shared decision making in long term medical planning, plus strengthens patient satisfaction with quality of care and quality of life.

Emotional Code: Preparing for Emotionally Critical Moments (C962)

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Objectives

- Define the term “Emotional Code”
- Identify that a serious implication of emotional codes is a change in clinical trajectory
- Formulate introductory groundwork for system-based strategies for emotional code anticipation, identification, and management.

Background: Placing limitations on resuscitation is a complex, difficult decision for families. We propose the use of a new term, Emotional Code (EC), to describe the emotional response when a family recognizes the implication of decisions related to limiting resuscitation efforts during life altering clinical changes. Inexperienced clinicians can, despite good intentions, exacerbate and potentially trigger ECs. Clinicians should receive training in strategies and steps to quickly mitigate and manage ECs due to its potential for trajectory changes.

Case Description: 3-month-old male with complex congenital heart and lung disease. Palliative care (PC) was consulted to help delineate goals and provide additional psychosocial support. Intensive treatment was not offered to the family given the patient’s comorbidities and clinical status. The PC team worked with the family and team to place limitations on resuscitation and continue all current medical therapies.

Several weeks of stable clinical status prompted the medical team to offer non-curative options of intensive therapies despite high mortality risk. The family made no decisions related to intensive therapies and chose not to change resuscitation status despite multiple reevaluations, given concerns for quality of life and believing that his heart stopping would be the natural end to his life. Over the course of days, clinical decompensation became evident as expected. The family was awakened by the primary team as the patient declined, and asked to revisit resuscitation status decisions. An Emotional

Code ensued and the family rescinded the order to limit resuscitation efforts and agreed to pursue intensive therapies.

Utilizing this case, we will review a proposed system-based approach to prepare and train medical and PC teams to effectively manage and hopefully prevent ECs.

Conclusion: Our case highlights an Emotional Code and its implication. Further collaboration is needed to enhance anticipation, identification, and management of ECs.

At a Cross Roads: Intersection of Behavioral Pediatrics and Palliative Care in a 12-Year-Old Female (C963)

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Objectives

- Recognize that palliative care physicians may have a role in addressing behavioral problems in children with severe neurologic impairment and that treatment does not fall solely under the purview of behavioral pediatricians.
- Use of traditional palliative medications may be indicated in treatment of behavioral issues in children with neurologic impairment.
- Recognize that a multidisciplinary approach is necessary in appropriately addressing issues of behavior that are impacting quality of life.

Background: In palliative care we attempt to alleviate suffering and this often puts us in the position of treating depression, anxiety and other psychological concerns. Even in pediatric palliative care however, we do not often address negative behaviors because general and behavioral pediatricians, psychologists and psychiatrists generally manage these problems. This is a case of a 12-year-old female with neurological impairment who was referred to palliative care to help manage behaviors that were interfering with her quality of life.

Case Description: The patient presented as a referral from her PCP with concerns of worsening symptoms of head-banging, moaning and weight loss due to food refusal. She was evaluated by psychiatry but they felt strongly that her behaviors had a physiologic etiology. Her lifelong primary care physician investigated potential sources of pain with physical exam and workup and referred to specialists including gastroenterology, neurology and neurosurgery, gynecology and dentistry. Despite all of this, she continued to have weight loss and worsening behavior. The patient's mother was despondent as she watched her daughter lose the ability to participate in things she once enjoyed, such as school or ABA therapy sessions. The Palliative Care Team elected to do a trial of Gabapentin and opioids resulting in reduction of self-injurious behaviors and improvement in her reluctance to eat. Additionally, she is beginning TMJ dysfunction treatment with dentistry and neurology. The hope that is that addressing a potential etiology of pain will lead to cessation of behavioral outbursts.

Conclusion: There are children whose neurological status prevents communication of feelings such as pain or anxiety and this leads to behaviors that are difficult to control and distressing for both family and patient. Palliative care may be helpful for these patients in the use of traditional palliative care medications as well as collaboration with other specialties.

Optimizing Transitions of Care: A Case for Using Checklists that Include a Palliative Plan of Care (C964)

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Objectives

- Understand the importance of accurate and comprehensive verbal sign-out between care providers for patients transferring from the intensive care unit to the medical ward
- Identify areas of potential communication breakdown during verbal sign-out as it relates to continuity of palliative care
- Describe how using a standardized checklist that ensures closed-loop communication could optimize continuity and timely implementation of both medical and palliative plans of care

Background: Transitioning a hospitalized patient from the intensive care unit (ICU) to the medical ward is a relatively complex interdisciplinary process where accurate verbal sign-out between providers is essential. Implementing checklists in similarly complex situations and environments has reduced errors in patient care. A practical approach, such as a transfer checklist, is needed to ensure both medical and palliative plans of care are effectively followed after patient transfer.

Case Description: A 90 year old woman with a history of hypertension, myocardial infarction, and multiple allergies including anaphylaxis to contrast dye presented with severe chest pain concerning for aortic dissection. She was admitted to the intensive care unit and intubated prophylactically prior to transesophageal echocardiogram. The test showed no abnormality, however post-procedurally the patient self-extubated, was reintubated and consequently failed a second extubation due to airway edema. After a course of dexamethasone, she was successfully extubated yet developed excessive oral secretions concerning for impending respiratory compromise. As the patient lacked decision-making capacity, the ICU team discussed the possibility of re-intubation with the patient’s power of attorney (POA). The POA elected to re-intubate the patient overnight if necessary with an expectation for a more complete goals of care discussion the following morning. Unfortunately, these plans were neither documented nor verbalized to the ward team and did not occur as planned. Shortly after transfer to the medical ward, the patient was re-intubated for respiratory failure, which resulted in a second prolonged ICU stay before goals were clarified with the assistance of the palliative care consult team.

Conclusion: Implementing a transfer checklist for verbal sign-out that includes both medical and palliative plans of care during patient care transitions may improve quality of care and patient outcomes. We will present and discuss such a checklist that we have formulated for our patient transfers.

From Tumor Board to Cure and Beyond: Integrated Palliative Care for Head and Neck Cancer Patients (C965)

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Objectives

- Discuss opportunities for oncology/surgery/palliative care co-management of patients with head and neck cancer from diagnosis, through treatments, and near end of life
- Describe key elements of a successful interdisciplinary collaboration with early integration and continuity palliative care for head and neck cancer patients.

Background: Head and neck cancer treatments are often curative but may profoundly impact patients' wellbeing and core functions of living (breathing, eating, communicating). Disfigurement and physical symptoms (pain, dysphagia, lymphedema) are compounded by emotional, social, and spiritual stressors. Early palliative care integration with the primary cancer treatment team provides the opportunity to alleviate stress where possible for patients, from the time of diagnosis throughout treatments and beyond.

Case Description: A 46 year-old Veteran with advanced squamous cell cancer of the soft palate was discussed in multidisciplinary cancer tumor board conference. His cancer was considered curable, and intensive treatments including surgery, chemotherapy, and radiation were recommended. The Palliative Care Team was consulted at the time of initial diagnosis and was engaged in his care throughout the treatment course (both inpatient and outpatient). The Palliative Care Team systematically addressed physical symptoms (pain, xerostomia, mucositis, sleep disturbance, weight loss), emotional needs (anxiety), caregiver burden and care coordination, seeking to optimize function and alleviate symptom burden. Two years after treatments were completed, his cancer recurred and was considered incurable. Palliative chemotherapy was initiated, and the Palliative Care Team again worked with him to anticipate and minimize symptoms and other stressors. He enrolled in home hospice near the end of his life.

We will describe key elements of a successful integration of palliative medicine into the treatment of head and neck cancer. We will identify the palliative care needs of head and neck cancer patients and review evidence-based treatment recommendations. We will present a model of successful collaborative care.

Conclusion: Optimal care of head and neck cancer patients integrates disease-modifying and palliative treatments from the time of diagnosis throughout the course of illness. This model of integrative care supports patients to achieve the best possible outcomes for both disease-specific symptom management and personal wellness.

Home Alone: Access to End of Life Care for the Incapacitated Patient Without a Surrogate Decision Maker (C966)

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Objectives

- Identify patients with advanced illness who are isolated that would qualify and benefit from hospice services
- Understand the ethical, legal, and multidimensional decision making process involved in accessing hospice and end of life care for isolated patients

Background: Isolated patients are persons that lack decision making capacity and do not have an appointed health care agent, guardian, or surrogate decision maker. In 2015, an amendment of the Family Health Care Decisions Act in New York State allowed isolated patients with advanced illness access to hospice care despite not being able to give consent. The amendment recognizes that decisions should be made in accordance with the patient's known wishes and values, including the patient's religious and moral beliefs. Access to hospice care for this vulnerable population continues to be a challenge across the country.

Case Description: Mr. X is an 88-year-old nursing home resident with advanced congestive heart failure (CHF) who was admitted to the hospital for respiratory distress. The patient was treated with intravenous antibiotics for pneumonia and exacerbation of CHF. Unfortunately, his pulmonary status declined and he was intubated. Despite multiple trials, the patient failed to wean off the ventilator. His health care providers agreed that he lacked decision making capacity. The team attempted to find a decision maker for Mr. X but no contacts were found. An in depth online search also did not identify any relatives or friends. It was later discovered that Mr. X had agreed to a Do Not Resuscitate (DNR) order at the nursing home and had said that he would not want to be on feeding tubes. Given these findings, the hospital ethics committee recommended palliative extubation and supported withholding artificial nutrition and hydration. The attending physician gave consent for hospice services on the patient's behalf. Mr. X was able to have end of life symptom management and interdisciplinary support by the hospice team and died peacefully.

Conclusion: Palliative care and hospice providers should continually advocate for isolated patients with advanced illness by improving access to hospice and end of life care

Spending Days “in vein”: Palliative Needs of Patients with ESRD on HD (C967)

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Objectives

- Identify opportunities to integrate early palliative interventions for patients with ESRD.
- Describe patient-specific symptom burden and opportunities for involve early specialist collaboration for medication management.
- Discuss the psychosocial needs of patients with ESRD and how they may impact the decision making process related to dialysis.

Background: Coined a "disease multiplier," end stage renal disease (ESRD) poses modifiable opportunities integral to quality of life and is therefore a prime target for palliative intervention. Approximately 75% of hemodialysis (HD) patients are over age 65 and studies suggest conservative medical management without HD can produce similar outcomes in elderly patients with comorbidities compared to those who started HD. This case examines the gap in care and opportunities for improved outcomes with early palliative intervention.

Case Description: A 68 year old male with chronic kidney disease (CKD) stage V, diabetes mellitus, hypertension, cardiomyopathy with an ejection fraction of 25%, grade III diastolic dysfunction, peripheral vascular disease and below knee amputation presents to the hospital with abdominal pain, diagnosed with diverticulitis and urinary tract infection. Patient had an acute need for HD and per nephrologist documentation, patient was “agreeable to proceed.” A tunneled catheter was placed with subsequent HD and patient discharged to subacute rehabilitation. Five weeks later, patient returned to hospital with weakness, found to have sepsis. Palliative care consulted for goals of care and symptom management. During the family meeting, patient lamented his decision to proceed with HD and SAR. Consequently, he expressed a desire to cease HD. Patient transferred to intensive care unit with elevated lactate, altered mental status, requiring pressor support. Palliative care met with patient’s family and negotiated goals of care with the medical team to support him in discontinuing HD and enrolling in hospice care. In evaluating this case there were multiple missed opportunities for improving care and subsequent needless patient suffering.

Conclusion: Despite significant disease and symptom burden, HD is often initiated without clear goals of care discussion. Early palliative collaboration and involvement in advance care planning and symptom management could have benefited this patient and others facing decision making in the setting of ESRD.

Refractory Catatonia: A Collaborative Model of Care for a Bewildering Syndrome (C968)

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Objectives

- Define catatonia.
- Name the two primary treatment options for patients with catatonia.
- Describe the role of the palliative care team in caring for patients with refractory catatonia.

Background: Catatonia is a clinical syndrome defined by a distinct combination of psychomotor, behavioral and emotional disturbances (1). While the syndrome has a favorable prognosis, in patients with advanced medical disease refractory catatonia may occur (2). In this situation, patients and their families may benefit from timely consultation of palliative care (PC).

Case Description: A 73 year-old female presented to the emergency department with altered mental status. Past medical history was significant for prior cerebrovascular accident, seizures, and dementia; her social history revealed that the patient's husband had died months prior. Exam revealed mutism, rigidity, posturing, negativism, and echolalia. Psychiatry was consulted and confirmed the diagnosis of catatonia. The patient showed an initial response to intravenous lorazepam but later worsened despite escalating doses. The PC team was consulted, while the psychiatry team initiated a trial of electroconvulsive therapy (ECT). PC clarified the patient's appropriate surrogate- a close friend, built rapport, and clarified the patient's values. Subsequent meetings allowed us to share hope that the ECT would improve her condition and concern that it may not. We explored options for her care if she did not improve, and the surrogate stated the patient would not want her life prolonged in her condition. After six treatments, the patient showed no signs of improvement. A joint meeting was held with the surrogate, palliative care team, psychiatry team, and hospitalist. The surrogate acknowledged the patient had shown no response to treatment, and agreed with transitioning to a focus on comfort with a DNR and DNI in place. The patient was transferred to the palliative care unit and died five days later.

Conclusion: This case illustrates the contribution of a palliative care team on the care of a patient with refractory catatonia. PC helped navigate next steps for the patient and family affected by this bewildering manifestation of disease.

Complex, Refractory Pain in the Setting of Metastatic Gluteal Cancer: How Alternative Therapies and the Interdisciplinary Palliative Care Team Effect Quality of Life C969)

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Objectives

- Describe alternative therapies to manage complex pain including Lidocaine infusions and interventional radiology (IR) nerve blocks
- Identify the role of individual members of an interdisciplinary palliative care team and the use of complementary & alternative medicine options in the setting of progressive cancer and intractable pain.

Background: The benefit of Interdisciplinary palliative team is becoming increasingly recognized by the medical community. Involvement of palliative care physicians, APPs, nurses, social workers, music therapists, pharmacists, and chaplains help to address the physical, emotional, social, and spiritual aspects of intractable pain

Case Description: A 31 year old with extensive gluteal squamous cell carcinoma was admitted for intractable pain and sepsis related to a wound infection. His gluteal wound measured 18.4 x 22.1 x 2.1cm and was associated with a constant sharp pain, which was significantly worse with his twice daily dressing changes. He had minimal relief with his home regimen of Methadone, Dilaudid, and Neurontin. The Interdisciplinary team became involved and made adjustments to his pain regimen. His pain remained intractable despite Methadone 40mg TID, Morphine SR to 60 BID, Neurontin 900mg QID, Ketamine 60mg TID, Dilaudid 10mg PO q3hPRN, and Dilaudid 1mg IVP for dressing changes. He received a Ganglion Impar Nerve and sacrococcygeal region block by Interventional Radiology which provided some relief of his pain. Topical lidocaine and ketamine were not effective. After consultation with the oncology pharmacist, he was started on Lidocaine IV boluses of 150mg prior to dressing changes and a continuous Lidocaine infusion which were very effective. The social worker provided relief of existential suffering. Music therapy team provided distraction during dressing changes and took a heartbeat recording set to his favorite song as gift for his daughter. Our palliative care chaplain provided spiritual support. He received radiation therapy and was gradually able to be taken off the lidocaine and have the opioids decreased.

Conclusion: This case highlights the significant impact that an interdisciplinary palliative care team can have on a patient’s quality of life, addressing the physical, emotional, social and spiritual aspects of pain.

Early Hypercalcemia Associated with Immunotherapy (C970)

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Objectives

- Review hypercalcemia of malignancy mechanisms and treatment options.
- Recognize hypercalcemia with immunotherapy, like pseudoprogression, may be associated with treatment effectiveness.
- Recognize prognosis may be different for early vs. late hypercalcemia in the setting of immunotherapy.

Background: Hypercalcemia of malignancy is common, occurring in 20-30% of cases, and is indicative of disease progression and a poor prognosis (median overall survival 30-50 days). There are three recognized mechanisms: parathyroid hormone related protein (PTHrP)-mediated, osteolytic metastases and 1.25-dihydroxyvitamin D-mediated. Treatments include hydration, bisphosphonates, denosumab, steroids, treating underlying disease. Hypercalcemia can also occur early in the course of immunotherapy. This may indicate effective immune system stimulation rather than disease progression. The mechanism is likely increased Tcell activation and inflammation, leading to increased cytokine-mediated resorption.

Case Description: 66 year old female with recurrent, metastatic vulvar squamous cell carcinoma. At time of presentation, she had received 4 cycles of palliative immunotherapy with pembrolizumab. Hypercalcemia was first noted 38 days after starting pembrolizumab (17days after cycle #2). PTHrP was elevated, intact parathyroid hormone (iPTH) normal and 1,25-dihydroxyvitamin D low. She was admitted to our hospital 99 days after starting immunotherapy (32 days after cycle #4) due to confusion and weakness resulting in a fall, and for hypercalcemia. Hypercalcemia was treated with IV fluids as she had received pamidronate a week prior, when she was admitted for hypercalcemia at an outside hospital. Her calcium normalized. Correlating calcium levels with pembrolizumab cycles reveals apparent relationship between the two. Serum calcium was normal prior to starting pemrolizumab, trended up following first cycle as disease responded, peaked after third and normalized after discontinuation and with treatment. Interestingly, calcium level after discontinuation and treatment, just prior to discharge was again elevated, perhaps indicating disease progression.

Conclusion: In this case of advanced vulvar carcinoma, we see hypercalcemia develop after initiation of immunotherapy, possibly indicating effective immune response, and resolve with treatment and discontinuation of therapy. Hypercalcemia seen with immunotherapy may not have the same poor prognositc implications as commonlyy recognized hypercalcemia of malignancy.

When One Size Does Not Fit All: Managing Complex Symptoms in Patients with Malignant Bowel Obstruction (C971)

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Objectives

- Recognize the multiplicity of challenges in treating bowel obstructions secondary to malignant disease
- Understand the physical, financial, and psychosocial burden of short and longer-term symptom management interventions.

Background: Symptoms of inoperable malignant bowel obstruction (MBO) are challenging to manage. Management options such as temporary nasogastric suction, total parental nutrition (TPN), percutaneous drains, and patient controlled analgesia (PCA), while alleviating symptoms, may add burden and negatively impact quality of life. With the lack of a standardized approach for symptom management and many interventions being invasive, management demands an individualized, patient-centered approach.

Case Description: EC is a 31-year-old, married male with stage IV gastric cancer status post gastrectomy whose course has been complicated by TPN dependence, recurrent MBO and venting J-tube placement. He reports bilious vomiting and acute abdominal pain, poorly controlled with transdermal fentanyl and oxycodone. Several antiemetics have provided suboptimal relief. Historically, octreotide has been most beneficial.

At home, he continued to have vomiting accompanied by significant abdominal pain. Upon readmission, IV octreotide was restarted and eventually he was re-dosed with octreotide LAR. Imaging revealed a partial obstruction at esophagojejunal anastomosis and a complete obstruction between the anastomosis and venting J-tube. He underwent an endoscopy where the partial obstruction was stented. A fentanyl PCA was initiated and the patch slowly up-titrated. However, EC was adamant that he did not want a PCA at home. He reported that the current configuration of venting J tube, TPN, and IV fluids was barely tolerable. Another device would create additional burden and augment the existing barriers to physical contact with his 10-month-old daughter. He was discharged on transdermal fentanyl, fentanyl buccal tablets, and liquid hydromorphone.

Conclusion: Management of symptoms of MBO requires complex and multifaceted interventions. Non-surgical interventions may reduce acute symptoms and improve a patient's quality of life. However, many of these treatment options exact their own set of psychosocial, financial and physical burdens. In such complicated scenarios, it is crucial to adopt an individualized, patient-centered approach to achieve the most optimal outcomes.

It's in the Genes: Evolving Prognostication in Glioblastoma Multiforme (C972)

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Objectives

- Identify emerging challenges in prognostication in glioblastoma multiforme
- Understand the need to incorporate molecular analysis to improve prognostic accuracy in patients with brain tumors

Background: Glioblastoma multiforme (GBM) is considered uniformly fatal. Standard of care includes surgical resection, followed by adjuvant radiation and alkylator therapy with temozolamide. Patients with GBM demonstrating methylation of the O6-methylguanine-DNA (MGMT) promoter region respond more favorably to alkylator therapy with significantly longer survival than their non-methylated counterparts. Survivorship challenges exist for patients with GBM which include ongoing functional and cognitive deficits.

Case Description: DL is a 74 year-old gentleman with a history of GBM diagnosed at an outside institution in February 2014. Following resection, he received adjuvant radiation and temozolamide. Over the next three years, he functionally declined and eventually fell at home, sustaining a fractured ankle. Repeat MRI of the brain demonstrated a new enhancing lesion supporting the diagnosis of progressive disease. Subsequently, he was admitted to home hospice. One month later, due to escalating care needs, he was admitted to an inpatient palliative care unit. After intense symptom management, his functional decline plateaued. Repeat MRI was performed which showed no evidence of disease. Up to 40% of patients with GBM demonstrate radiographic 'worsening' on imaging studies which can appear as progressive tumor. These radiographic findings can correspond to treatment effect and, as in this patient, improve over time. Oncology was consulted and additional molecular analysis revealed MGMT promoter methylation providing explanation for this patient's prolonged survival. Although the patient was happy about his new prognosis he struggled with his persistent debility and uncertainty about next steps for his care. Multiple family meetings with an interdisciplinary approach occurred to provide education about his diagnosis and prognosis.

Conclusion: Hospice and palliative care practitioners should be aware of MGMT-methylation status and how it impacts prognostication in patients with glioblastoma multiforme.

Professional Caregiver Burden: When the emotional weight comes home with you (C973)

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Objectives

- Define professional caregiver burden
- Establish risk factors associated with professional caregiver burden
- Apply mitigating factors of professional caregiver burden

Background: Hospice and palliative medicine providers utilize their skills to care for patients with complex medical diagnoses and symptoms while paying great attention to a patient's social needs, goals and their caregivers. Providers often neglect the emotional burden they carry while caring for these patients; similar to caregivers of patients. This can have a profound impact on a provider's interpersonal relationships, productivity and wellbeing. This implores the question, how does a professional caregiver decrease his or her burden when caring for a patient? While the literature addresses compassion fatigue and self-care, the concept of simultaneous mitigation of professional caregiver burden as an integral part of patient care is novel.

Case Description: 25-year-old female with neurofibromatosis and widely metastatic malignant nerve sheath tumor, who was no longer a candidate for cancer directed therapy, was advised by her oncologist to receive comfort focused care. Her primary goal was to return home to her 3-month-old infant and die peacefully surrounded by her family. Her pain management was challenging due to marked existential distress and complex family dynamics. She declined rapidly, leaving a narrow window of time to accomplish this goal. The palliative care team experienced emotional distress with what seemed like an impossible task. This professional caregiver burden was mitigated by recognizing the emotional impact early on, debriefing with team members at regular intervals, sharing personal narratives, partnering with multi-disciplinary providers, and seeking follow up to obtain closure.

Conclusion: Professional caregiver burden can be defined as: a healthcare professional's emotional distress related to actively providing care for a patient. It is important to recognize professional caregiver burden, associated risk factors and to identify an approach to minimize professional caregiver burden. If left unaddressed, this may contribute to provider compassion fatigue, guilt, depression and even burn out.

In the Eye of the Beholder: Caring for Patients with Visual-Variant Dementia (C974)

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Objectives

- To contrast Posterior Cortical Atrophy with other types of dementia
- To explain the history, pathophysiology, clinical characteristics, risk factors epidemiology and management of this unusual and under-recognized disease
- For providers in multiple domains (palliative medicine specialists, geriatricians, occupational therapists, psychologists, social workers, chaplains, etc.) to be able to work together to adequately formulate a treatment plan

Background: Posterior Cortical Atrophy, or the "Visual Variant of Alzheimer's Disease", is a neurodegenerative syndrome that generally affects adults in their mid-life starting with derangements in visual perception leading to neuropsychiatric manifestations and cognitive deficits. This disease, coined by Dr. Benson in 1988, is a generally under-recognized disease with average diagnostic delay of 4 years partly due to lack of standardization of diagnostic criteria and the unusual heralding signs. This case illustrates the number of healthcare touch points the patient encountered prior to diagnosis and how palliative care benefitted the patient.

Case Description: A 55 year old M physician's assistant with no significant medical history presents to his primary physician noting difficulty suturing. He states that everything appears to be in 3-D. Visual exam reveals impairment in near vision. 2 years after being fitted for glasses, the patient notes difficulty reading, driving and significant anxiety concerning his ability to work. Ophthalmology diagnoses a left homonymous hemianopsia. Subsequent MRI does not reveal an acute process. 4 years later, the patient has stopped working and has become dependent in iADLs and some ADLs. He has progressive visual loss with hallucinations and increasing anxiety and insomnia. He starts to fall and have myoclonic jerks. MRI Brain reveals atrophy of the occipital lobe. 9 years after initial presentation, his condition deteriorates and he is no longer able to swallow or communicate. He is admitted to an inpatient hospice unit for care and palliation where he eventually dies 1 week prior to his 65th birthday.

Conclusion: Posterior Cortical Atrophy is an under-recognized form of early-onset, atypical dementia. Though no medication has been described to slow or reverse the process, early recognition and involvement of palliative care can promote non-pharmacologic treatment options to improve quality of life and support the patient and family.

Caring For The Homeless At The End Of Life: How Use Of The POLST Form Can Facilitate Patient Preferences (C975)

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Objectives

- Recognize the challenges of caring for the homeless at the end of life.
- Describe how use of the POLST form can be used in the homeless population to achieve patient centered care.

Background: Caring for the homeless at the end of life is challenging given the complex interplay of medical, social, psychiatric and substance issues.

Case Description: A 56 year old man with past medical history significant for homelessness, schizophrenia, tobacco abuse, prior metamphetamine abuse and recently diagnosed oropharyngeal squamous cell carcinoma with associated pseudoaneursym of the internal carotid artery presented with hemoptysis. He had previously refused treatment. After consultation with ENT and Interventional radiology, he agreed to cerebral angiography with coil embolization of the internal carotid, which was achieved.

Postoperatively, he was neurologically intact with satisfactory blood pressure control. He was seen by Medical Oncology and Radiation Oncology and treatment options were discussed. 7 weeks of combined chemoradiation was recommended. Nursing, case management, inpatient and outpatient social work, and the Palliative Care team met with him to discuss this treatment plan and possible housing options.

He was evaluated by Psychiatry, who felt that he was competent to make his own medical decisions. He continued to decline disease directed therapy, but was initially open to discussion of a change in the focus of his care towards comfort, with possible discharge to inpatient hospice as a bridge to a more permanent housing option. Upon further consideration, he declined this as well, preferring discharge back to the downtown area. He eschewed further hospitalizations or invasive medical interventions, and requested DNR status. He was agreeable to discussing and completing a POLST form, which was accomplished before his discharge and which he carried with him. He has not been hospitalized since, and has been seen by our outpatient community social work team. He remains open to the option of hospice care when he is no longer able to be independent.

Conclusion: An interdisciplinary approach utilizing the POLST form honored our patient's preferences and is worthy of further study in the homeless population.

Rethinking the Care Plan for Trisomy 13 and 18 (C976)

Linda Siegel, MD, Cohen Children's Medical Center, New Hyde Park, NY

Objectives

- Understand the latest literature pertaining to prognosis for patients with trisomy 13 and 18
- Identify the ethical issues involved in caring for children with trisomy 13 and 18

Background: Trisomy 13 and Trisomy 18 (T13/18) have traditionally been described as lethal anomalies but a surge of literature in the past few years has described longer term survival in some children. Despite this literature, many families are counseled that the outcome is dire and advised to limit medical interventions. Families may turn to the internet for support, where they can find other families whose children have survived past infancy, often after undergoing medical procedures. This can lead to conflict between families and the medical team.

Case Description: A baby girl was diagnosed prenatally with trisomy 13 and enrolled in perinatal hospice. Parents counseled extensively during the pregnancy to expect fetal demise or death shortly after birth. She was born at 37.5 weeks and was vigorous at birth. She was found to have cleft lip, atrial septal and ventricular septal defects, polydactyly, and grade IV vesicoureteral reflux. The Palliative Care Team was consulted and she was discharged home with hospice. She was discharged from hospice after 6 months. She underwent repair of her cleft lip and amputation of her extra digits. Her cardiac lesions closed spontaneously. The palliative Care Team was involved during every hospital admission. She is currently 4 years old and has not been hospitalized in more than 2 years. She smiles, laughs, cruises and eats by mouth, and has very good quality of life according to her family.

Conclusion: With new literature documenting longer term survival in some babies with T13/18, medical professionals may be asked to reconsider recommendations about medical interventions for these babies. Palliative care teams are often involved with T13/18 babies and may be the ones to advocate for individualized assessment regarding procedures. A review of some of the more recent literature will be undertaken along with discussion of ethical issues surrounding care for babies with T13/18.

Goals of Care Discussion Should Drive Rehabilitation Decision for Terminal Conditions such as Creuzfeldt-Jakob Disease: A Case Report (C977)

Rebecca Siegel, MD, Thomas Jefferson University, Philadelphia, PA
Kristofer Feeko, DO, Thomas Jefferson University, Philadelphia, PA

Objectives

- Gain further understanding of the use of inpatient palliative rehabilitation at the end of life.
- Learning to provide adequate and appropriate care for a patient prior to discharge home with hospice services.

Background: Many patients with terminal diseases do not qualify for inpatient rehabilitation. This case excemplifies how inpatient rehabilitation can assist patients and families achieve a safe home discharage.

Case Description: A 64 year old male presents with two-month decline in cognition and motor function attributed to depakote levels. He had insomnia and difficulty walking, progressing to myoclonic jerking. CSF cell counts and autoimmune panels were normal, CT chest/abdomen/pelvis were negative for malignancy, brain MRI demonstrated cortical ribboning. Creutzfeld-Jakob disease was confirmed after CSF resulted positive for RT-QuiC. Patient was transferred to acute rehab prior to discharge and care was coordinated with neurology, psychiatry and palliative care. On admission patient was straight cath dependent and incontinent of bowels, needed IV hydration and mechanical soft diet with thickened liquids and was dependent for mobility, transfers and ADL's. Hospice care was deferred, but family wanted to implement his wishes and goals of home discharge, maintenance of self feeding, bowel and bladder continence. Through coordinated physical, occupational, speech therapy and rehabilitation psychology, the patient achieved setup for regular consistency self-feeding with weighted utensils, was able to maintain hydration using a weighted cup and straw and allowed for discontinuation of IV fluids. Foley catheter was discontinued, and he demonstrated initiation for voiding and was continent with a condom catheter overnight. Agitation, insomnia and myoclonus were also addressed. Family was adequately trained in his medical, nursing and rehabilitation care. Eventually, after revisiting his goals of care, the patient was discharged home with hospice services.

Conclusion: Through coordinated care and regular discussions focused on goals of care and realiatic goals were identified that necessitated the skilled care of acute rehabilitation and can be accomplished in a time frame that considers disease trajectory. Patients with terminal conditions such as this one with CJD can benefit from acute rehabilitation.

Intractable Neck Pain in a Newly Diagnosed Acute Myeloid Leukemia Patient: Importance of a Broad Differential (C978)

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Objectives

- Describe Crowded Dens Syndrome (CDS)
- Establish the diagnosis and treatment of CDS in adult patients
- Identify the diagnostic challenges that contribute to increased morbidity of CDS

Background: Crowned Dens Syndrome (CDS) is a variant of pseudogout involving calcium pyrophosphate dehydrate (CPPD) deposition in the atlantoaxial junction. Imaging shows characteristic "crown-like" calcifications surrounding the dens. Patients present with severe neck pain, rigidity, and high fever. This can be confused with polymyalgia rheumatica, giant cell arteritis, meningitis, discitis, inflammatory arthritis, infection, leukemic meningitis, and malignant leptomeningeal disease.

Case Description: A 75 year old male with history of type 2 diabetes mellitus, prostate cancer, gout, and chronic low back pain presented to the emergency department for fever and acute onset of neck pain. He had multiple recent emergency department visits for severe neck pain, which improved with NSAIDs. Workup revealed pancytopenia, and subsequent bone marrow biopsy revealed Acute Myeloid Leukemia (AML) with 60% blasts. Palliative care was consulted for pain management on day 10 of hospitalization for cancer-related pain management. On exam, he appeared uncomfortable. He had neck rigidity, right shoulder pain with radiation down arm, and neck erythema and warmth. This initially raised concern for leukemic meningitis. Hydromorphone PCA was started. He then developed right ankle swelling with CPPD crystals on aspiration. He was treated with short course of steroids, which slightly improved his neck pain. Review of prior cervical spine CT showed calcification of the transverse ligament. He was diagnosed with CDS. Treatment with prolonged 30-day course of prednisone 40mg resulted in relief of his neck pain, and he proceeded with induction chemotherapy.

Conclusion: Crowned Dens Syndrome is rare disorder, but can cause significant morbidity and prolonged hospitalization. Incidence is uncertain, but is reported in 1.9% of outpatient neck pain. Healthcare provider awareness can lead to early recognition and treatment, as well as avoiding unnecessary testing and invasive procedures. This presentation will review the common presentation, diagnostic challenges, and preferred treatment strategies of CDS in a newly diagnosed cancer patient.

Collaborative Management of Pruritus in the Palliative Care Setting: Pharmacological and Non-Pharmacological Interventions (C979)

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Objectives

- Participants will enhance their knowledge base regarding current evidence-based non-pharmacological methods to treat pruritus in patients with serious chronic illness.
- Participants will enhance their knowledge base regarding current evidence-based pharmacological interventions to manage pruritus.
- Participants will verbalize understanding of the role of each member of the interprofessional team in the management of pruritus: Nursing, medicine, pharmacy, and mental health counselor.
- Participants will verbalize understanding of the complex pathophysiological causes of pruritus in patients with a serious chronic illness.

Background: The key to successful symptom management with pruritus rests on identifying common underlying causes for the symptom and using evidence-based non-pharmacological and pharmacological treatments to improve quality of life. Pruritus is explained by those who experience it as an itching sensation where the location of the itch usually cannot be identified. The underlying pathophysiology for pruritus is not well understood. This makes the collaborative efforts of the interprofessional team a necessity.

Case Description: Sam is a 66-year-old patient who was admitted to the hospital after a recent hemodialysis session where he developed a significant drop in his blood pressure with an increase in his heart rate and complicating Atrial Fib. Sam has a long-term history of Diabetes, Hypertension, Congestive Heart Failure, and Hyperlipidemia. Sam has been receiving hemodialysis four days a week for 7 years related to ESRD (end stage renal disease) secondary to Diabetes. Sam has struggled since the age of 30 with managing his serious chronic illnesses and maintaining controlled glucose and Hgb A1C levels. During his hospital stay, Sam develops severe pruritus and multiple skin abrasions have resulted due to constant scratching. Sam states the symptoms are causing him great distress. He also says that his depression and anxiety have worsened with the insomnia. The nurse arranges a family meeting with the patient, family, pharmacist, primary care provider and the palliative care team in the hospital. Sam is educated on non-pharmacological interventions including oatmeal creams, cool baths and photo-therapy. He is also educated on medications supported in the research including: Neurontin, Nalfurafine, and Cromolyn Sodium.

Conclusion: After review of Sam's current medication list, which already included Neurontin, research suggested that Nalfurafine was the next medication to try. Sam was started on the non-pharmacological interventions as well as Nalfurafine and reported improvement in symptoms within 72 hours.

Tale of Two Patients: Varied Expression of Existential Suffering by 2 Patients with Advanced Cancer in an Acute Palliative Care Unit (APCU) (C980)

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Objectives

- To identify and recognize different domains of existential suffering
- To identify management strategies for existential suffering

Background: Recognizing and managing existential suffering remains challenging. Four domains of existential distress include: mortality, freedom, meaningless, isolation. Management range from psychotherapy to sedation. These 2 cases aim to demonstrate how patients manifest within these domains and management to alleviate suffering.

Case Description: Case 1

69y man with renal cell carcinoma receiving end-of-life care expressed fear of lying down “as he may not wake up” and was fixated on moving his legs as his wife was paraplegic prior to her death. He expressed concerns of not being a good Christian but only stated that it is between “him and God”. Supportive psychotherapy, spiritual care and prn anxiolytic medications were provided and he was able to express his fear of dying, concern about his family, and Edmonton Symptom Assessment System scores improved: pain (4 to 2), fatigue (8 to 5), depression (5 to 4) and anxiety (8 to 5). He expired peacefully with family bedside.

Case 2

71y woman with follicular lymphoma and colonic obstruction requiring nasogastric drain of fecaloid matter. Initially, she felt focusing on comfort rather than cure symbolized giving up but eventually felt at peace. Physical symptoms were well-controlled but emotionally became more distressed, repeatedly asking angrily “Why is it taking so long to die?”, “Why am I still here? I’m ready to die.” Spiritually, she was supported by her family through Bible readings and prayers. However, she was distressed about being a burden to them. Interdisciplinary approach involving expressive supportive counseling, spiritual care and integrative medicine resulted in limited distress relief. Due to increasing agitation, patient and family agreed to titrate chlorpromazine to sedation. Her family was appreciative that she was restful until her death.

Conclusion: Existential suffering manifest through multiple domains in each patient. A combination of pharmacologic and non-pharmacologic techniques may be needed to relieve suffering at end-of-life.

Antidepressant Options for a Patient on Complete Bowel Rest (C981)

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Robert Arnold, MD, FAAHPM, University of Pittsburgh, Pittsburgh, PA

Objectives

- Define three pharmacologic options for treating depression in patients who cannot take oral medications.
- Describe non-pharmacologic options for depression management.
- Recognize various non-oral pharmacologic options for the treatment of depression that are not available for use in the United States or are currently undergoing further study.

Background: There are few options for the management of depression for patients on complete bowel rest. Non-pharmacologic options include psychotherapy, cognitive behavioral therapy and electroconvulsive therapy. FDA approved medications include: mirtazapine, a norepinephrine and serotonin antagonist, available as an oral dissolving tablet (ODT); and selegiline, a monoamine oxidase inhibitor, available as an ODT and transdermal patch. The former requires adequate secretions for the drug to dissolve. The latter should only be used with expert guidance due to drug and food interactions and life-threatening adverse effects. Non-FDA approved options include doxepin, a tricyclic antidepressant (TCA), available as a cream; and ketamine, an N-methyl-D-aspartate receptor antagonist, given intravenously. Finally, citalopram, a selective serotonin reuptake inhibitor, and amitriptyline, a TCA, are available in an intravenous form, but not in the United States.

Case Description: A 52-year old male with no past medical history presented with multiple chest and abdominal gunshot wounds. The patient had an extended hospital stay complicated by abdominal infections, gastrointestinal fistulae and delirium. He had an open abdominal pouch and was receiving prolonged total parenteral nutrition and complete bowel rest to allow for gastrointestinal healing. Palliative Care was asked to evaluate the patient for depression.

The patient noted depressed mood, insomnia, anhedonia, low self-esteem, fatigue, and poor concentration. He described hopelessness regarding his medical condition. Physical exam was notable for cachexia, blunt affect and open abdominal wounds. Vitamin B12 and thyroid stimulating hormone were normal.

The patient was started on sublingual mirtazapine ODT for depression. He was unable to tolerate it as the tablet would not dissolve due to lack of oral secretions. Psychology was involved to provide non-pharmacologic cognitive behavioral therapy.

Conclusion: This case examines treatment options for depression in patients who cannot take oral medications. This presentation discusses the data supporting these treatments, as well as their risks, benefits, and costs.

Marriage at the End of Life (C982)

Puja Umaretiya, MD, Boston Children's Hospital, Boston, MA
Michele Torres, MDiv MA, Boston Children's Hospital, Boston, MA
Jonathan Mullin, MD, Washington University School of Medicine, Saint Louis, MO

Objectives

- Understand the difference between a ceremonial “blessing” and legal marriage
- Understand the psychological and spiritual benefits that marriage at the end of life may provide to patients and families
- Describe legal and financial implications and instances in which marriage at the end of life may not be appropriate

Background: Patients may wish to be married as end of life approaches. This may provide legitimacy to an existing relationship, to ensure loved ones are cared for and have access to services only available to family members, or to complete the life milestone of a wedding. Marriage at end of life can shape patient and family narratives and may help with bereavement care. Palliative teams may play a key role in understanding patient's considerations for marriage at the end of life.

Case Description: Ms. Y is a 26-year-old woman with dyskeratosis congenita s/p BMT admitted to the ICU with severe abdominal pain, a partial small bowel obstruction, and bacteremia. There were no further options for surgical interventions or treatment of her underlying condition. Increasing pain required intrathecal infusion of rupivicaine and hydromorphone, fentanyl PCA, continuous ketamine infusion, methadone, and ultimately a midazolam infusion for palliative sedation. In discussion with a chaplain, Ms. Y's mother expressed a desire to see her daughter married, as this had been something that was important to Ms. Y. This was broached with Ms. Y's fiance, who also felt that this was something that had been important to the couple. As Ms. Y was sedated and could not provide consent, the chaplain officiated a ceremonial "blessing" for the couple. The family and fiance expressed significant gratitude for this opportunity both prior to and after Ms. Y's death.

Conclusion: Marriage at the end of life may alleviate psychological and spiritual distress in patients and families and can occur as a ceremonial "blessing" of the relationship or as a legal marriage. We will review the factors that should be considered when patients and families express a desire for marriage at the end of life, possible legal and financial implications, and the potential benefits to both patients and families.

Who is Afraid of the Big, Bad Methadone? Incorporating Intravenous Methadone in Chronic Pain Treatment (C983)

Colleen Vega, CNS, Stanford Hospital, Stanford, CA
Shireen Heidari, MD, Stanford University School of Medicine, Stanford, CA
Anthony Milki, BA, Stanford University, Palo Alto, CA

Objectives

- The attendee will identify pharmacologic and patient factors that should be considered when administering methadone intravenously.
- The attendee will be able to communicate consensus guidelines for the use of intravenous methadone in advance care.
- The attendee will be able to restate the disadvantages of intravenous methadone and common side effects that could influence the use of methadone.
- The attendee will be able to give examples of key educational points that should be discussed with patients and/or families before administration of intravenous methadone.

Background: Historically, methadone has been a third-line therapy for symptom management. More recently, methadone has gained acceptance as a first-and-second line treatment for chronic pain. Methadone may be more effective for refractory pain as it has both mu-opioid agonist and NMDA receptor antagonist actions. However, there are challenges and reluctance to use intravenous methadone due to a lack of established conversion protocols, stigma associated with methadone use, recent “black box” warnings by the FDA, and the long half-life of the medication. As a result, intravenous methadone continues to be used as a last resort medication.

Case Description: A 66 year old man with a history of gastric esophageal reflux disease and recurrent diaphragmatic hernias was admitted to the ICU following surgical revision of diaphragmatic repair. His course was complicated by bowel leakage to anterolateral left chest, loculated left hydropneumothorax and compressive left lobe atelectasis. After numerous surgeries, including thoracotomy and exploratory laparotomy, he expressed desire to focus on his comfort. Infusions of lidocaine, ketamine, and hydromorphone as prescribed by surgical team were ineffective for pain relief and caused undesired side effects. Soon after transitioning to comfort care, the palliative care team started methadone IV boluses for escalated pain. After discussion with patient, family and pharmacy, as well as review of current guidelines, moved forward with the plan to run a low-dose continuous infusion of methadone, continue methadone boluses as needed, and decrease hydromorphone infusion. Pain was controlled on infusion alone for 24 hours allowing patient quality time for him to spend with his family.

Conclusion: Methadone should be considered for patients with severe, refractory pain in the setting of cancer. It can also be used in chronic disease related pain. This presentation will summarize some of current guidelines for intravenous methadone in scheduled and infused forms, including risk factors, monitoring, side effects, and response.

Death by Patient Controlled Analgesia: Tampering and Overdose (C984)

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Ambereen Mehta, MD MPH, University of Virginia, Charlottesville, VA

Objectives

- Identify patients at high risk of tampering with patient controlled analgesia (PCA) machines.
- Improve patient safety by identifying methods patients may use to tamper with PCA machines.
- Identify methods to prevent patient self-harm by PCA machine tampering.

Background: In America, there has been an increase in deaths from opioid overdose. Substance abuse and addiction complicate the assessment and treatment of pain and can be particularly challenging for palliative care teams. Patient controlled analgesia (PCA) machines for pain management are often used, but it is possible for patients to tamper with these machines. The rising prevalence of opioid use disorder calls for the identification and close monitoring of patients at risk for opioid misuse.

Case Description: A 27-year-old male with sickle cell disease on a home opioid regimen was admitted for sickle cell pain crisis. He was initially ordered bolus-only, as needed, IV hydromorphone due to a history of tampering with PCA pumps. He had previously purchased a PCA key online to unlock the machine and had obtained the pump access code by observing his nurses. Given his high risk for misuse, tamper proof tape was placed on his intravenous (IV) line; however, when this was found to have a broken seal there was concern for tampering. Consistent with hospital policy, the patient's room was searched, which revealed crushed pill powder on his bedside table and a syringe in his pocket. Upon questioning, he admitted to self-injection of these medications. An interdisciplinary team collaborated to develop a safe regimen for gradual opioid discontinuation to minimize withdrawal symptoms. After discharge, the patient was again admitted to an outside hospital where the details of his prior admission were unknown to the new care team. At this hospital, the patient tampered with his PCA machine and died from an opioid overdose.

Conclusion: This case highlights the need for awareness of PCA machine and IV tampering in patients with a substance abuse or addiction history. Multi-disciplinary safety protocols are necessary to prevent patient self-harm in high risk patients.

Use of Continuous Deep Sedation in Management of Ventilator Withdrawal in Ventilator-dependent ALS: Lessons Learned (C985)

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Thomas Miller, MD, Hospice & Community Care, Lancaster, PA
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Objectives

- Describe major features of ALS and associated symptoms
- Review literature about deep sedation for ventilator withdrawal
- Determine one possible method of deep sedation for ventilator withdrawal
- Consider the ethics of elective ventilator withdrawal

Background: Less than 10% of patients with ALS in the US will elect for tracheostomy and invasive ventilator support. If these patients decide to stop life prolonging measures, standard ventilator withdrawal protocols are inadequate tools to ensure comfort because patients cannot display or communicate distress. There is limited literature on ventilator withdrawal in patients with end stage ALS. We present a case of ventilator withdrawal using continuous deep sedation in a patient with ventilator dependent ALS in the hospice inpatient unit.

Case Description: S.P. is a 54 year old male with an 11 year history of ALS who was ventilator dependent for 9 years. He was quadriplegic with bulbar impairment, communicating through small eye movements. Fear of becoming locked in led him to request removal from ventilator support. Because he was cognitively intact, but had limited ability to indicate dyspnea or other discomfort, continuous deep sedation was utilized. He was transferred to an inpatient hospice unit, and had a peripheral IV and subcutaneous sites placed. Following a religious ceremony with clergy, family and friends, sedation was initiated. Morphine, midazolam and phenobarbital were used over 90 minutes to ensure adequate sedation as determined by heart rate and responsiveness. When sedation was achieved, he was removed from the ventilator and displayed no respiratory effort, dying minutes later with friends, family and clergy surrounding.

Conclusion: Ventilator withdrawal in patients with ALS does not follow typical protocols. Based on review of scant literature and our experience, we recommend: 1) Comprehensive assessment of goals with discussion of proposed procedure and expected outcomes 2) Use of peripheral or central IV 3) Establish sedation plan based on literature and patient's prior medication use 4) Establish plan for assessing sedation 5) Prepare to start a continuous infusion, if needed 6) Use of interdisciplinary support for patient and family.

Deadlier than Cancer: Addiction and Mental Illness at End-of-Life (C986)

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Elizabeth Lindenberger, MD, Icahn School of Medicine at Mount Sinai, New York, NY
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Objectives

- Identify the need for a comprehensive, interdisciplinary team approach, including palliative care, psychiatry, and addiction specialists, when caring for seriously ill patients with mental illness and substance use disorders
- Highlight the medical and psychosocial complexity of caring for "dually diagnosed" patients and the role of an interdisciplinary palliative care team in facilitating communication

Background: Palliative care has gained a well-deserved reputation for effectively assisting in the care of complex and seriously ill patients who may be simultaneously struggling with multiple physical and psychiatric issues. The symptomatic patient with advanced cancer, serious mental illness, and active substance use disorder poses medical and ethical challenges for even the most experienced healthcare providers.

Case Description: A 47-year-old woman with HIV/AIDS, bipolar disorder, and polysubstance use disorder was diagnosed with locally advanced breast cancer. Her treatment was complicated by persistent crack cocaine use, missed oncology and chemotherapy appointments, psychiatric hospitalization for suicide attempt, and discharge from outpatient palliative care for opiate contract violations. Over ten months, her potentially curative cancer progressed to terminal, with spinal metastasis and a bleeding, painful fungating breast mass requiring hospitalization and inpatient palliative care consultation. Her pain and bleeding improved dramatically with palliative radiation, and she was discharged on adjuvant analgesics without opiates. She expressed hopefulness to maintain sobriety in order to regain visitation rights with her daughter and to continue chemotherapy to palliate symptoms and prolong her life. Unfortunately, she was readmitted two weeks later: relapsed on cocaine and delirious with pain. Given her alarmingly rapid decline and lack of further cancer directed therapies, her family requested inpatient hospice admission. Her pain was well-controlled with morphine until her death two days later.

Conclusion: Respecting and caring for patients with complex medical and psychiatric issues necessitates balancing the ethical principles of autonomy, benevolence, and non-abandonment. Treating this vulnerable patient at end-of-life required an interdisciplinary palliative care approach to develop a management plan striving for best possible outcomes and standard of care, while informed by principles of harm reduction and "meeting the patient where they are." Ideally, she would have benefitted from concomitant comprehensive psychiatric and addiction treatment early in her course.

A Winning Combination - Palliative Care with Intense Home Care Medicine (C987)

Rebecca Wester, MD HMDC, Methodist Physicians Clinic, Omaha, NE

Objectives

- Introduce house calls model of care as a creative approach to palliative care delivery
- Examine challenges and success of healthcare to individuals with complex chronic illness through house calls program.

Background: House calls are often overlooked as an option in caring for frail and medically complex individuals. This house calls program sets out to help patients access the right care, in the right place, at the right time by intensifying the medical home model. The house calls program is an extra layer of support and manages high-spend patients through improved access and quality. Community partners join together with house calls team to support patients and their caregivers, so they can thrive at home. Home health services are required for program participation. The team incorporates interdiscplinary assessments and symptom management based on their expressed values, goals, and needs of the patients and their caregivers. An emphasis on community partnerships and collaboration is intregral to the success of the hospital at home component, which is viewed as an alternative to the emergency department (ED).

With intense medical interventions at their home, unwanted ED and hospitalization are converted into meaningful conversations that incorporate palliative care into medical decision making.

Case Description: Clinical vignettes for CHF, COPD, and those with dementia will be discussed since they are the primary population targeted through the house calls program.

Conclusion: In caring for individuals living with advanced illness, house calls program strives to effectively harmonize care with aligning treatments with their preferences. Combining intense home care medicine with palliative care creates and delivers on a positive vision of what good care looks like during a serious illness.

A Tale of Two Opioid Tapers: It Takes a Team (C988)

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Ethel Frierson, RN, Memorial Sloan Kettering Cancer Center, New York, NY
Natalie Moryl, MD, Memorial Sloan Kettering Cancer Center, New York, NY

Objectives

- Recognize opportunities for opioid taper in the disease-free survivor and the active cancer patient
- Describe the role of the interdisciplinary team in opioid taper

Background: : As threat of an "opioid epidemic" looms large in the media, hospice and palliative medicine practitioners play an important role in modeling opioid stewardship while ensuring patient access to pain and symptom relief. Opioid taper after the completion of disease-directed therapy or symptom resolution remains a keystone of opioid stewardship, and our interdisciplinary team plays a crucial role in assisting patients with this often challenging process.

Case Description: Mrs. D is a 38-year-old female with metastatic breast cancer to bone with excruciating 10/10 pain from a large femoral metastasis. She required rapidly escalating doses of fentanyl, with analgesia achieved at 200 mcg/hr every 48 hours with as needed hydromorphone. Shortly after the completion of radiation therapy, she stopped requiring hydromorphone rescues. With assistance from our palliative care pharmacist and nurse's check-ins, she tapered off fentanyl over 2 weeks without resurgence of pain or withdrawal symptoms. Mrs. D was maintained on rare hydromorphone rescues for incidental pain.

Mr. M is a 45-year-old male with squamous cell carcinoma of the tongue who presents to the palliative clinic after definitive chemo-radiation therapy requesting opioids and reporting persistent oral pain. He was maintained on as needed oxycodone elixir, though his dose requirements escalated while his mucositis was resolving. We engaged our interdisciplinary team including our social worker and palliative care nurse who elicited his significant anxiety. We partnered with Mr. M towards a goal of taper and engaged his family for additional psychosocial support. While he continued to request opioids, our team clearly communicated at every encounter our commitment to providing him the best care and our mutual goal for an opioid-free future.

Conclusion: The interdisciplinary team plays an important role in assisting with the often challenging process of opioid taper. A clear message echoed by every member of the team bolsters support for taper.

Too Pooped to Poop: Intestinal Slowing and TPN in Mitochondrial Disorder (C989)

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Patricia Keefer, MD, University of Michigan, Ann Arbor, MI

Objectives

- Identify characteristics of chronic intestinal dysmotility and potential signs of impending intestinal failure.
- Recognize issues of weighing benefits and burdens of potential treatments in the setting of uncertain prognosis.

Background: As our ability to identify mitochondrial disorders increases, the link between mitochondrial disease and gastrointestinal dysfunction is clear. Symptoms of pain, nausea, vomiting, diarrhea, and constipation associated with intestinal dysmotility, as well as concomitant poor growth and development, greatly impact the overall quality of life for children coping with mitochondrial disorders. Our ability to adequately and chronically support nutrition in children with intestinal dysfunction via the parenteral route is growing, however, with this there is significant burden to consider.

Case Description: In this series of three cases followed by pediatric palliative care, patients experienced chronic and progressive issues with gastrointestinal function leading to use of total parenteral nutrition (TPN) as a palliative intervention to extend and improve quality of life. All three patients carry a diagnosis of mitochondrial disorder and autism spectrum disorder (ASD). All three patients experienced significant symptoms of constipation, nausea, vomiting, and feeding intolerance leading to failure to thrive and poor quality of life. Extensive attempts to improve bowel evacuation and feeding tolerance through medical and surgical interventions failed. In all three cases the decision to utilize TPN on a chronic basis required significant discussion weighing the benefits and burdens of this intervention. The decision was fraught with concern for the “end outcome” as well as difficulty in identifying parameters for TPN continuation or discontinuation, and ownership of medical management. All three patients experienced improved quality of life and nutritional status with initiation of TPN and elimination or reduction of enteral feeding.

Conclusion: These cases identify the difficulty in weighing benefits and burdens of interventions intended to be temporary support in situations where return of function is unlikely and prognosis uncertain. Development of a consistent strategy for identifying markers of progression of feeding intolerance to intestinal failure with support for difficult decision-making is recommended.

Rage and Ramble, Shiver and Shake - Tacrolimus Neurotoxicity (C990)

Justin Yu, MD, University of Pittsburgh Medical Center, Pittsburgh, PA

Objectives

- After reading the poster, the reader will be able to list 3 specific symptoms of tacrolimus neurotoxicity.
- After reading the poster, the reader will be able to establish a treatment plan given a case description of tacrolimus-induced neurotoxicity.

Background: Tacrolimus is an immunosuppressive medication belonging to the calcineurin inhibitor family often used for solid organ transplant rejection prophylaxis. Known side effects include nephrotoxicity, susceptibility to infection, and increased risk of malignancy (i.e., post-transplant lymphoproliferative disease). Common adverse symptoms include GI upset, headache, and peripheral neuropathy.

CNS neurotoxicity is an increasingly recognized complication that transplant clinicians describe as “the rage and ramble, shiver and shake.” The most common early manifestation is upper extremity tremors. Mental status changes such as restlessness and insomnia can progress to psychosis, visual hallucinations, and delusions if untreated. Speech distortion including slurring, stuttering and speech apraxia (inability to protrude tongue or pucker lips) occur as well. In the most severe manifestations, cortical blindness, seizures, and coma are seen.

The risk of CNS neurotoxicity depends on transplant type; liver recipients are most vulnerable. Diagnosis remains largely clinical. The majority of patients with neurotoxicity do not exhibit significant findings on neuroimaging. Treatment is ideally discontinuation of tacrolimus and replacement with cyclosporine. Another option is replacement with mycophenolate and re-initiation of tacrolimus at a lower dose. Benzodiazepines and anti-psychotics can be used for seizures and agitation respectively.

Case Description: DB was a 50 year-old male with heart failure for whom our team was consulted for delirium one month after heart transplant. Since transplant, his personality had changed and he intermittently experienced visual hallucinations. Despite low-dose olanzapine, hallucinations occurred more frequently and he became more irritable. On exam, significant bilateral hand tremors and stuttering speech were observed. He was not disoriented or confused. His immunosuppressive regimen consisted of tacrolimus, mycophenolate, and prednisone.

Conclusion: Tacrolimus neurotoxicity should be considered in the evaluation of delirium for transplant patients. After replacing tacrolimus with cyclosporine, DB's tremors improved and his mental status returned to baseline within days.