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## Improving quality in colon and rectal surgery through palliative care

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### ABSTRACT

Palliative care is a medical discipline that emphasizes quality of life and can be provided in parallel with recovery-directed treatments in colon and rectal surgery. Palliative care is receiving increasing attention and investigation for its potential to improve quality and outcomes for a wide spectrum of patients by benefiting symptom management, supporting complex health care decision making and facilitating care transitions. Primary palliative care refers to the application of palliative care principles by clinicians of all disciplines whereas specialty palliative care is a multidisciplinary approach and includes a clinician with advanced training and experience.

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### Introduction

Palliative care improves quality of life and outcomes for seriously ill patients by managing symptoms, identifying goals of care and facilitating care transitions. The World Health Organization definition of palliative care is multi-faceted and emphasizes the incorporation of both the patient and his or her family (see Table 1).<sup>1</sup> Many factors have coalesced in the United States health care system to illuminate the value of *quality* rather than *quantity* of life including, but not limited to, an aging patient population and increasing recognition of the limitations of highly technical, invasive and impersonal care. As stated in a New York Times opinion essay, “The hard truth is that every single one of us will one day reach a point where our irreparable vulnerability, and decline, cannot be denied or reversed.”<sup>2</sup> Moreover, in some patient populations, incorporating palliative care principles has been shown to be life-prolonging and improve survival.<sup>3</sup> The principles of palliative care can be provided at any time via two approaches, “**primary palliative care**” and “**specialty palliative care**”. Primary palliative care is provided by clinicians of any discipline whereas specialty palliative care is typically provided by a multidisciplinary team including chaplains, social workers, and clinicians with focused training and expertise. In the surgical literature, a variation of these models is sometimes described as “integrative” versus “consultative” palliative care.<sup>4</sup> In this nomenclature, integrative palliative care is a variation of primary palliative care in that palliative care is embedded in the primary team.<sup>5</sup> Of note, palliative care can be provided to patients at any stage of serious illness (see Fig. 1).

This is in contrast to hospice which that requires that the treating physician establish that the patient has a life expectancy of six months or less and that the treatment plan is focused on comfort. Although the American College of Surgeons has advocated for palliative care for surgical patients since 2005, improving access to palliative care for surgical patients through both primary and specialty approaches is an important area of focus for quality improvement.<sup>6</sup> Recent work by Lee et al. developed a consensus definition for serious illness in surgical patients. This references the physiologic and social vulnerabilities seen in various other definitions of serious illness and incorporates the role of surgery and trauma (see Table 2).<sup>7</sup> Palliative care is particularly applicable to the care of patients with colon and rectal conditions due to the advanced average age and frailty of this population, high symptom burden and frequent home health requirements that are often challenging to both patient and caregiver. An excellent model of how palliative care can be integrated into each phase of surgical care is provided in the 2019 American College of Surgeons Geriatric Surgery Verification Standards which are covered in another chapter in this edition.<sup>8</sup> The principles of palliative care should be considered in all phases of surgical care as well as in end of life care. In addition, many elements of palliative care expertise overlap with surgical competencies such as excellent symptom management, empathetic communication and identification of treatment goals in the context of prognostic assessments.

### General principles

One of the most fundamental aspects of palliative care and a significant contributor to surgical care is pain management. “**Total pain**” was first described by Dame Cicely Saunders, the creator of the modern

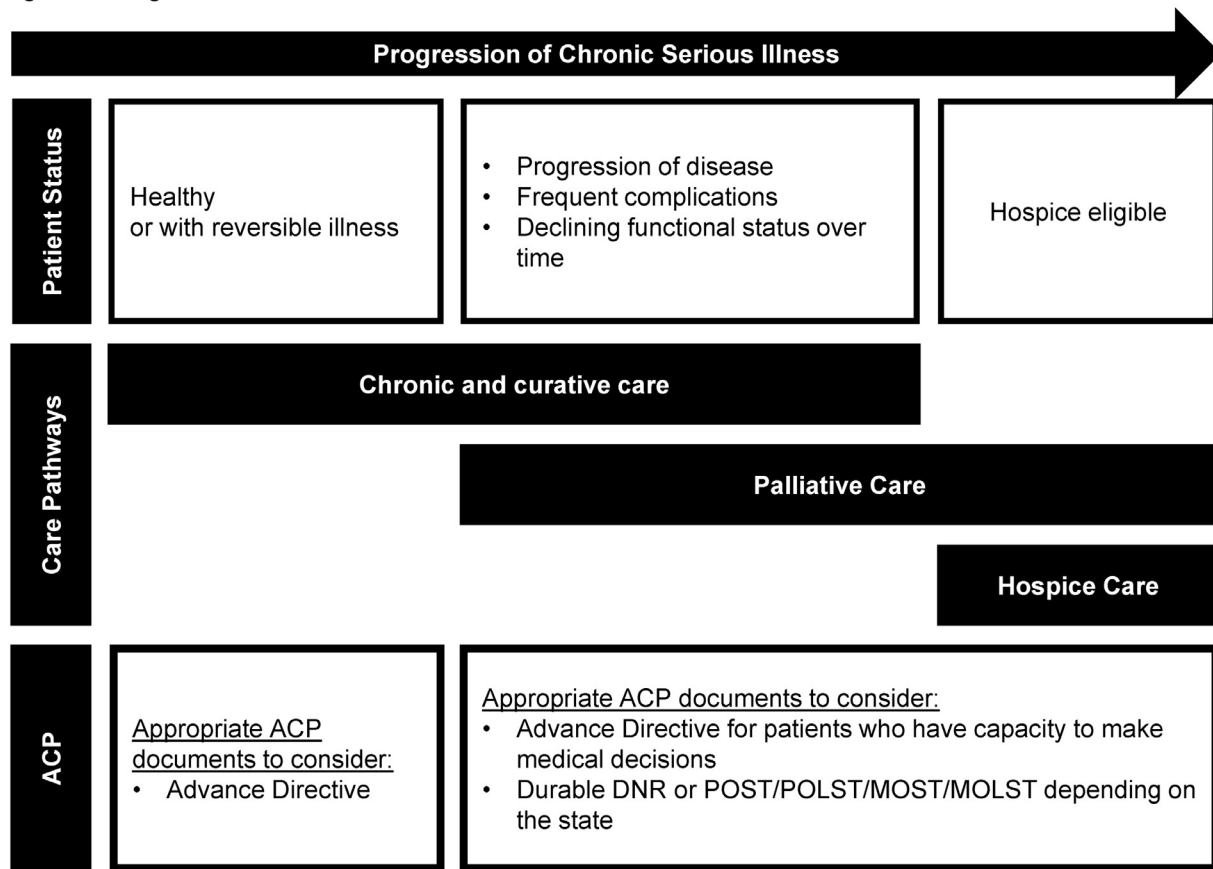
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**Table 1**  
World Health Organization Definition of Palliative Care<sup>1</sup>  
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<p><b>WHO Definition of Palliative Care:</b> Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.</p> <p><b>Palliative care:</b></p> <ul style="list-style-type: none"> <li>• provides relief from pain and other distressing symptoms;</li> <li>• affirms life and regards dying as a normal process;</li> <li>• intends neither to hasten or postpone death;</li> <li>• integrates the psychological and spiritual aspects of patient care;</li> <li>• offers a support system to help patients live as actively as possible until death;</li> <li>• offers a support system to help the family cope during the patients illness and in their own bereavement;</li> <li>• uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated;</li> <li>• will enhance quality of life, and may also positively influence the course of illness;</li> <li>• is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.</li> </ul>
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Figure 1. Progression of Chronic Serious Illness



*ACP: Advance Care Planning; DNR: Do Not Resuscitate order; DDNR: Durable Do Not Resuscitate order; MOLST: Medical Orders for Life-Sustaining Treatment; MOST: Medical Orders on Scope of Treatment; POLST: Physician Orders for Life-Sustaining Treatment; POST: Physician Orders for Scope of Treatment*

**Fig. 1.** Progression of Chronic Serious illness. **ACP:** Advance Care Planning; **DNR:** Do Not Resuscitate order; **DDNR:** Durable Do Not Resuscitate order; **MOLST:** Medical Orders for Life-Sustaining Treatment; **MOST:** Medical Orders on Scope of Treatment; **POLST:** Physician Orders for Life-Sustaining Treatment; **POST:** Physician Orders for Scope of Treatment.

concept of hospice for end of life care.<sup>9</sup> Total pain refers to the concept of pain having physical and psychological components, such as psychosocial suffering, existential distress and financial toxicity.<sup>10</sup> Anxiety, depression and delirium can all impact pain and/or complicate pain expressions. A model of total pain as it applies to patients with inflammatory bowel disease is provided in Fig. 2. This diagram illustrates the interplay between factors that contribute to exacerbating and relieving pain and also the complex relationship between these factors. For example, social isolation and lack of support increases suffering but pain also can conversely result in increased isolation.

Although, as with other fields in medicine, palliative care providers are aware of the potential complications of opioid use, opioid management is a key domain in palliative care. Key best practice principles for opioid prescribing that apply to both surgical and palliative care patient populations include setting expectations, using the lowest effective strength and dose and mitigating risk to both the patient and the community. Many state boards have regulations related to opioid prescribing and mandate actions such as checking urine drug screens (UDS) to ensure the presence of the expected medication and absence of others, documentation of treatment plan, and prescription of Narcan for specific

**Table 2**  
 Definition of Serious Illness in Surgical Patients<sup>6</sup>  
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#	Criteria
1.	ASA Risk: Class IV or V
2.	Vulnerable elder - Older adult > 84 years old - Older adult > 64 with any functional or cognitive disability
3.	Advanced cancer - Stage III and IV solid cancers OR hematologic malignancies - AND at least one hospitalization in prior year
4.	Oxygen-dependent pulmonary disease
5.	Heart failure diagnosis with any all-cause hospitalization or at least two ED visits in past 6 months
6.	Cirrhosis with any Childs-Turcott-Pugh (CTP) Class or Model for End-Stage Liver Disease (MELD) score
7.	End stage renal disease on dialysis or eligible for dialysis
8.	Dementia with impaired daily function and at least one hospitalization in prior year
9.	Frailty
10.	Trauma - Severe traumatic brain injury with Abbreviated Injury Scale of 3 or greater - Critical injury (Injury Severity Score>25 or >24 hours intensive care unit admission)
11.	Nursing home resident

situations such as morphine milligram equivalent (MME) thresholds or concomitant medications. Although these policies generally apply primarily to chronic pain and often exclude both acute post-operative pain and pain –associated with malignancies or end of life, prescribers should be aware of any applicable prescribing regulations in their state. Also, the rationale for such regulations should be recognized. For example, if a patient on high doses of chronic opioids is being evaluated for surgery, this is a risk factor that should be identified and managed. This can even potentially extend to the precautionary measure of obtaining a UDS to make sure a patient is taking their medications as prescribed to avoid providing a patient with high doses of medications that they are not actually taking. Also, titration of opioid prescribing to functional outcomes is equally important in palliative care as it is in surgery. During surgical recovery, effective pain control may be measured by the ability to use an incentive spirometer, ambulate or get enough sleep. On the other hand, pain control outcomes of interest in palliative care may relate to the ability to feel comfortable enough to spend quality time with family or participate in other valued life activities. Somnolence to the extent that it impairs these functional outcomes is thus a failure of opioid prescribing in both surgical and palliative care treatment paradigms. It is imperative to discuss the patient's goals regarding pain control pre-operatively in order to have alignment of expectations and a successful pain management plan.

Figure 2: Total pain and opportunities for intervention

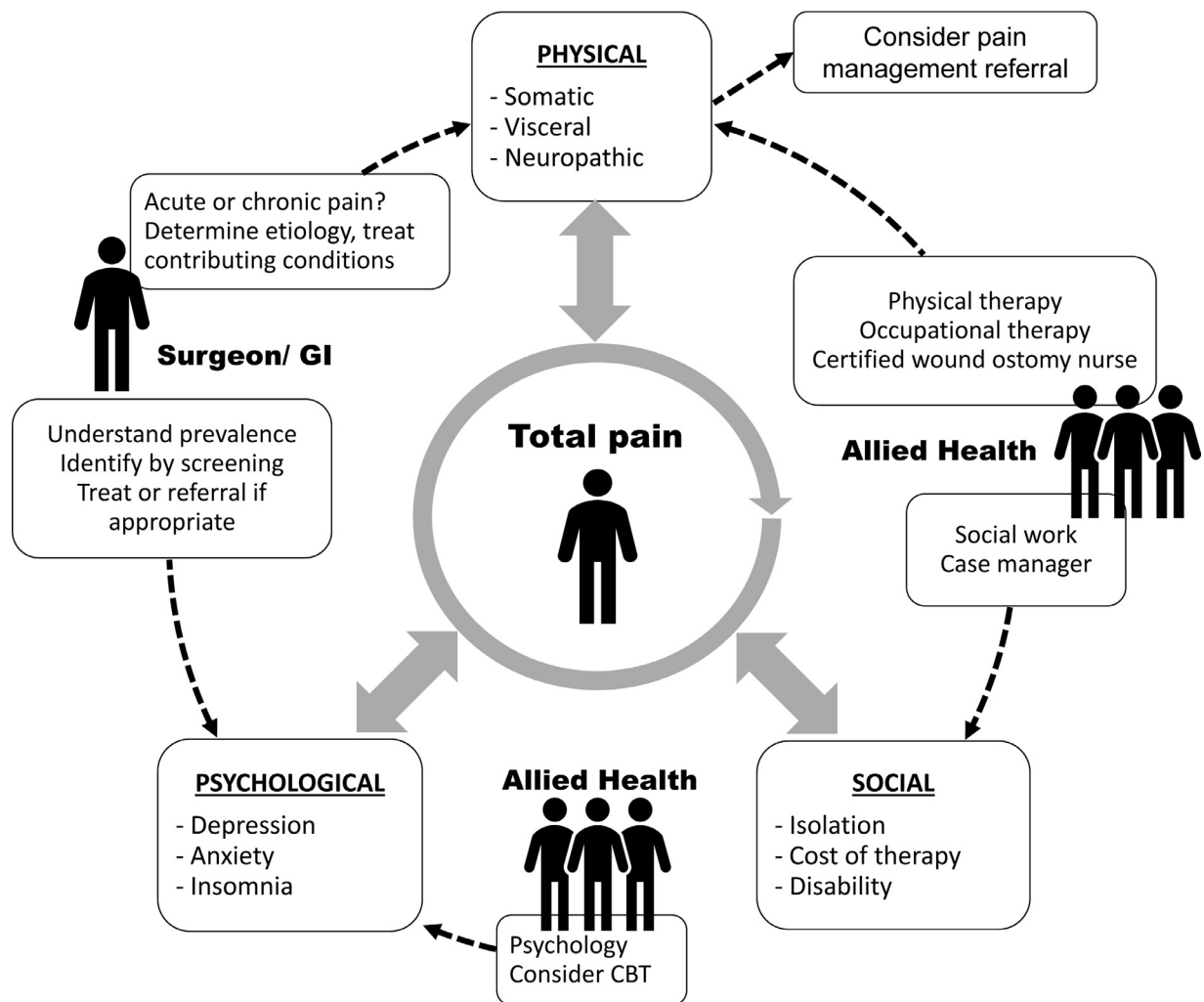


Fig. 2. Total pain and opportunities for intervention.

There are several key opioid management concepts that have developed in palliative care that may advance understanding and contribute to successful pain management in surgical patients. The first is the notion of **“chemical coping.”**<sup>11</sup> This is an aberrant form of opioid use that has been described primarily in patients with chronic cancer pain but also may be an important model to inform understanding of opioid use in any patient with a significant diagnosis. This term refers to the use of opioids to minimize psychological suffering through the dulling of emotions induced by excess opioid use. Patient controlled analgesia (PCA) devices may be particularly susceptible to misuse related to chemical coping. A more controversial topic is the possible existence of **“opioid induced hyperalgesia.”** This theory proposes that allodynia and hyperalgesia can result from neurotoxicity related to opioid use.<sup>12,13</sup> Although there is not current consensus on the phenomenon of opioid induced hyperalgesia, it is a consideration (along with investigation for delirium, discussed later in this article) to factor into the evaluation of a patient whose pain expression and response to opioids is atypical. Importantly, a potential approach to patients with both chemical coping and possible opioid induced hyperalgesia is an **“opioid rotation.”** This is a structured approach to exchanging one opioid for another in the hopes of achieving greater efficacy or lower adverse effects.<sup>14,15</sup> Surgeons frequently do these types of medication manipulations in the post-operative setting. However, colorectal surgeons less frequently need to perform complex opioid conversions as the majority of colorectal surgery patients present in an opioid naïve state. An opioid rotation in a palliative care model includes calculating the equi-analgesic dose of the current prescription and then decreasing the new medication dose to account for incomplete cross-tolerance between opioids. Also, the new opioid dose is adjusted depending on whether the opioid rotation is being performed for inadequate pain control or adverse effects. Lastly, dose adjustments are made for patient factors such as age, opioid tolerance and frailty. Although methadone is a commonly used medication in the palliative care setting and may have advantages for patients with chronic, malignancy associated pain, consultation with a pain management expert or palliative care specialist is recommended for patients being considered for methadone. Review of medication management strategies with a pharmacist is also always an option to confirm safety in opioid prescribing.

With increasing recognition of the potential adverse effects of opioid use, non-pharmacological and non-opioid adjuncts are being increasingly used. Adjuncts in the palliative care setting include, but are not limited to, physical and occupational therapy, distraction therapy, mindfulness, palliative radiation, aromatherapy, cold and/or heat therapy, massage therapy and non-opioid medications (nerve blocks, steroids, non-steroidal anti-inflammatory medications, antidepressants, acetaminophen). In our health system, a multi-modal approach is integrated into Enhanced Recovery After Surgery (ERAS) protocols and may similarly include nerve blocks, lidocaine infusions, sub anesthetic ketamine, scheduled acetaminophen and non-steroidal anti-inflammatory medications. We have observed that dialogue between clinicians treating pain in these different populations can be mutually beneficial. Colon and rectal surgeons often provide pain management for patients with advanced lower gastrointestinal malignancies and it is of great importance that pain and symptoms be adequately managed prior to discussing prognosis, care goals and/or treatment options.

Recognizing and treating delirium is a key aspect of surgical recovery, contributing to the avoidance of mortality and other complications. Delirium management is also a core expertise in palliative care. There are a variety of accepted methods for delirium assessment, perhaps the most common is Confusion Assessment Method (CAM).<sup>16</sup> Studies have shown high rates of post-operative delirium, particularly in patients with critical illness or following cardiac surgery.<sup>17–19</sup> Risk factors for post-operative delirium include preexisting cognitive impairment, medical comorbidities and prolonged

hospitalization. Strategies to prevent delirium primarily focus on minimizing disruptions to a patient’s schedule and environment such as preserving a normal sleep wake cycle. The most important principle of delirium management is to maintain a high index of suspicion as delirium is frequently under recognized, particularly hypoactive delirium. Universally applying a standard assessment tool such as the CAM in a systematic way can help to increase identification of delirious patients in order to assess for contributing etiologies and provide treatment. Notably, the first step in evaluating a patient with delirium is to look for underlying causes such as infection, medication effects and metabolic abnormalities. Also, there is a dynamic interaction between pain and delirium. Elderly patients are at risk for delirium as a sequelae of inadequate pain control. Conversely, patients may also complain of pain (often diffuse “all-over pain” or pain without a clear source) as a manifestation of delirium. And, finally, opioids may be a contributing factor to the development of delirium. A patient with delirium and ongoing pain may be a candidate for an opioid rotation as well as thoughtful use of adjuncts and should never be provided PCA opioids.

In conclusion, regarding symptom management, many other symptoms associated with colon and rectal disease, other than analgesia and delirium, are important for the surgical patient and are referable to palliative care expertise. Management of nausea and anorexia is vital to oral intake in order to satisfy nutritional requirements for wound healing. Treating fatigue and energy expenditure is a common concern in the acutely ill and/or post-operative patient. These are just several examples of the many additional palliative care relevant symptoms that play a role in successful surgical recovery and/or quality of life in patients with surgical conditions.

Another core element of palliative care is advanced communication to support complex health care decisions and establish goals of care. These skills are relevant in the preoperative setting to discuss treatment alternatives. A common example in the realm of colon and rectal surgery is patients with ulcerative colitis considering the tradeoffs involved in restorative proctocolectomy versus chronic immunosuppressive medications. Decision support tools such as the “Best Case/Worst Case” paradigm developed by Gretchen Schwarze MD and colleagues at the University of Wisconsin may be applicable in these scenarios.<sup>20</sup> In seriously ill patients with life limiting disease in any phase of surgical care, goals of care discussions may evolve to focus on tradeoffs between quantity and quality of life—for example, life prolongation requiring hospitalization and intensive care versus time at home with family.

Also, surgeons should query patients about and integrate existing advance care documents and care preferences into the preoperative assessment. Related activities include the proactive identification and documentation of a health care proxy. Patients with chronic illness may sometimes present with documents establishing care preferences such as a **“Durable Do Not Resuscitate”** (DDNR) form or **“Physician Order for Life Sustaining Treatment”** (POLST) (<https://polst.org>) form that need to be recognized and incorporated into the treatment plan.<sup>21</sup> A DDNR form has the status of a physician order outside the acute care setting and authorizes the withholding of cardiopulmonary resuscitation including cardiac compressions, endotracheal intubation and other advanced airway management, artificial ventilation, defibrillation and related procedures in the event of cardiopulmonary arrest. Specific policies about DDNR orders vary by state but they are an important mechanism for patients to avoid aggressive and painful interventions and die a natural death. Of note, patients may communicate the existence of a DDNR order through presentation of an appropriately executed document or by the presence of authorized “DDNR jewelry” such as an arm band. Furthermore, although policies vary between institutions, there is a general consensus that patients with “Do Not Resuscitate” status should have discussion and documentation regarding the perioperative management of their code status.<sup>22</sup> A recent article by Udelsman et al



describing preoperative care preferences in a population of older, high-risk patients found that the majority desired some limitation to life-sustaining treatment.<sup>23</sup> Of note, advance care planning activities can often progress in an orderly and stepwise fashion in patients with chronic and slowly progressive medical conditions (Fig. 1). This process is more challenging when an individual's health status changes suddenly due to unplanned surgery or traumatic injury. On the other hand, planned high-risk surgeries permit planning such as identification of health care proxies. These different scenarios and their implications for identification of care preferences and planning are important areas of ongoing investigation.

Frail, elderly and high-risk patients are particularly likely to benefit from palliative care and the role of surgical palliative care has been relatively well-characterized in these patient populations. Recognition of geriatric patients as a unique group that makes up a large portion of surgical volume and has unique needs and care complexities is the basis for the American College of Surgeons Geriatric Surgery Verification Program.<sup>8</sup> The care of geriatric patients is particularly applicable to the discipline of colon and rectal surgery as the average age at diagnosis for colon cancer is 68 for men and 72 for women.<sup>24</sup> Geriatric patients should undergo a robust preoperative assessment that screens for functional and cognitive impairments, malnutrition, and palliative care needs.<sup>25</sup> Surgical outcomes may also need to undergo different consideration in elderly patients as they are at high risk for mortality and complications. For example, a 2012 study showed that one year mortality after proctectomy with colostomy to be as high as 51% in nursing home residents. Similarly, rates of fecal incontinence in patients undergoing sphincter sparing procedures were 37%<sup>26</sup> which is a negative outcome that significantly impacts an older adult's quality of life. Reported surgical outcomes vary based on time period studied, patient characteristics, geographic location, procedure performed, urgency and indication for surgery. However, the greater vulnerability of elderly patients to surgical risk should always be kept in mind. And, in addition to the possibility of complications or death, another important consideration for elderly patients undergoing surgery is the potential loss of the ability to participate in valued life activities.<sup>27</sup> For example, a study of Medicare beneficiaries undergoing four high risk cancer surgeries showed that there is substantial time away from home in the year following surgery.<sup>28</sup> To summarize, surgical goals for all patients should be frankly discussed and put in the context of life expectancy, overall prognosis and the possible loss of function.

Increasing age is an important risk factor for frailty, but not all elderly patients are frail and not all frail patients are elderly. Features of frailty include loss of strength, loss of weight, fatigue, decreased energy and endurance and slowing of performance.<sup>29</sup> There are a variety of methods described by which to measure frailty including the risk analysis index (RAI), FRAIL scale (e.g. Fatigue, Resistance, Ambulation, Illnesses, & Loss of Weight), and Fried Frailty Phenotype; a detailed review of different ways to measure frailty is outside the scope of this article.<sup>30,31</sup> A study in the Veterans Affairs medical system showed screening for frailty was associated with increased surgeon-requested consultation to specialty palliative care and decreased mortality.<sup>30,32</sup> Notably, surgical deferral also increased, although the survival advantage persisted when findings were controlled for age, frailty, and whether or not the patient received the surgical procedure. Frailty is an important factor in the mechanism of ground level falls in traumatic injury and poses a risk that must be managed in the postoperative setting. As such, frailty is an important consideration for the ability to mobilize patients during post-operative recovery and contributes to the inability to live independently after hospital discharge.

There are a variety of ways to identify patients at high risk for poor operative outcomes including calculations of mortality and complications produced by the American College of Surgeon's National Surgical Quality Improvement Program (ACS NSQIP) risk

calculator and the criteria for serious illness in surgical patients recently described by Lee et al and available in Table 2.<sup>7,33</sup> Schwarze and colleagues recently identified a list of 227 high risk operations in patients age 65 and older using 2 population based cohorts and a modified Delphi procedure, whereas another recent study used referral to a high risk anesthesia clinic and age as criteria to identify high risk surgical patients.<sup>23,34</sup> There is emerging evidence to suggest that specialty palliative care consultation improves end of life outcomes for families of deceased patients.<sup>35</sup> The ideal future state would be to prospectively identify patients at high risk of complications, death or other unfavorable outcomes and provide access to palliative care through either primary palliative care or referral for specialty palliative care consultation.

### Specific to colon & rectal surgery

In some settings, colon and rectal surgeons may have access to robust specialty palliative care programs or well-established hospice agencies. In other communities, access to these resources may be limited and surgeons may serve as the main providers of many palliative relevant services, such as end of life care. Notably, the Accreditation Council for Graduate Medical Education and the American Board of Surgery both indicate that surgeons should have competencies related to communication and end of life.<sup>36,37</sup> However, these remain areas where experience and confidence are often lacking for surgeons. There are specific domains of colon and rectal surgery practice for which palliative care principles and skills are particularly applicable.

One of the foremost is the management of malignancies of the lower gastrointestinal tract including cancers of the anus, rectum and colon. Malignant bowel obstructions are one of the paradigm conditions that exemplify the existence of a variety of potential treatment pathways such as conservative management, minimally invasive interventions such as decompressive gastric tubes versus full surgical intervention.<sup>38–40</sup> The existence of these treatment options that can be chosen based on patient preferences, values and goals lends itself to communication frameworks such as "Best Case/Worst Case".<sup>20</sup> It is also important to keep in mind that the population of patients with advanced malignancies of the lower gastrointestinal tract is very heterogeneous. Patients may present with obstructing colon cancer and liver metastasis but potentially be candidates for a curative intervention if both lesions are resectable. On the other hand, patients with peritoneal carcinomatosis or other indicators of advanced disease have been demonstrated to have an average life expectancy of months.<sup>38</sup> This creates the potential for a patient to spend all or most of their remaining time in the hospital recovering from surgery rather than participating in other activities that may provide greater quality of life. There are currently two studies recruiting patients to characterize the outcome of early palliative care in patients with GI malignancies undergoing surgery, although neither is specifically focused on cancers of the lower gastrointestinal tract.<sup>41,42</sup>

Palliative surgeries or procedures are interventions performed with the purpose of improving quality of life rather than curing a condition or prolonging life. The concept of palliative surgery originated in oncologic surgery and was originally used to distinguish between anatomically curative surgeries versus surgeries with residual cancer.<sup>43</sup> This notion of prospectively classifying an intervention based on *intent* can then inform the content of discussions between surgeon and patient. Importantly, studies in many patient populations have demonstrated that patients often have inaccurate understanding and expectations about the outcome of treatments in the context of advanced cancer.<sup>44</sup> It is essential that the goal of surgery in these instances be frank, clearly described and put in the context of overall prognosis. Furthermore, the best outcomes can be achieved when patients are also encouraged to proactively consider downstream decisions if the intended goal of the palliative intervention is not achieved.

The role of palliative care in patients with inflammatory bowel disease is an almost entirely unexplored topic. A literature review found only one applicable article was published in the last twenty years.<sup>45</sup> Patients with inflammatory bowel disease (IBD- Crohn's Disease and Ulcerative Colitis) often encounter significant symptoms including acute and chronic pain, psychological distress, nausea, and fatigue. For patients with severe disease, there is often a need to weigh risks and benefits of chronic medication use versus surgical interventions that can profoundly impact gastrointestinal function and body image. Surgeries for ulcerative colitis frequently necessitate a temporary or permanent ostomy. Crohn's Disease, which can affect any part of the gastrointestinal tract, often has involvement of the anus, a part of the body that is highly personal for many individuals. Also, anal Crohn's can often result in sphincter impairment that then potentiates the possibility of improved quality of life with an ostomy. Patients with ostomies have a variety of perspectives and many describe dramatic improvement in quality of life with ostomy formation.<sup>46</sup> However, there is also the possibility of physical and psychiatric complications. IBD also often occurs in young people who may have less robust coping mechanisms, financial security and ongoing life stressors such as school and work. Studies have shown high rates of chronic abdominal pain, anxiety, depression and suicidality amongst IBD patients.<sup>47–50</sup> Total pain is an especially applicable concept to IBD patients and the complex interplay between physical, social, and psychological factors and with the care team is shown in Fig. 2. The potential benefits of structured involvement of a multidisciplinary team including social work, financial counseling, wound and ostomy care nursing, pain management and mental health expertise is an area for future study. Involvement of specialty palliative care in the management of IBD patients is not typical, but the deliberate application of primary palliative care may be highly beneficial.

### Palliative care challenges in surgical patients

Multiple studies have demonstrated that access to palliative care, particularly specialty palliative care is limited for surgical patients.<sup>51</sup> Overall rates of consultation are low and often deferred until very downstream in the progression of serious illness. There are undoubtedly many factors that contribute to this observation including difficulties prognosticating in surgery and trauma patients, surgical culture which tends to be oriented towards intervention, quality metrics which focus on outcomes like length of stay and mortality rather than quality of life, and expectations of patients, family and other stakeholders in the United States health care system. Surgeons may also be concerned about legal risk of malpractice action if they are perceived as not “doing everything” for a patient, even if the chance of a successful outcome is exceedingly small. A further reality is that there is a shortage of palliative care providers overall in the United States health care system and physicians with dual-board certification in surgical specialties and hospice and palliative medicine are even more rare. The existence of clinicians with expertise in both palliative care and other disciplines such as oncology has been shown to be critical to the adoption of palliative care in these fields.<sup>52</sup> The paradigm of “sudden advanced illness” is even more complicated. A sudden life changing event provides no ability to prepare unlike the slow worsening of a chronic condition which is common in medical illness as shown in Fig. 1.<sup>53,54</sup> There is little evidence upon which to base best practice guidelines and reviews of palliative care literature generally focus on the paucity of evidence and need for study. As stated in 2018, “Seriously ill surgical patients have substantial palliative care needs that are often unrecognized and unaddressed.”<sup>55</sup> However, studies which define the gaps in surgical palliative care serve as important beacons to help focus the development of evidence to help guide and optimize future practice.<sup>56</sup>

### Future role

There was a growing appreciation of the potential role and benefits of palliative care for surgical patients prior to the COVID-19 pandemic which occurred in winter of 2020. Now, with the transformation of daily life and the delivery of health care internationally related to COVID-19, there is no doubt that palliative care will be even more relevant. As Cooper and Bernacki state in a recent JAMA Surgery viewpoint essay, excellent communication, caring for families and healthcare workers and understanding the complexity of human suffering will be critical.<sup>57</sup>

### Conclusion

The principles of palliative care apply to every phase of surgical care and are highly relevant to colon and rectal surgical conditions. Surgeons can practice primary palliative care by emphasizing symptom management, being aware of the importance of quality of life for patients, identifying and integrating patient care preferences, and optimizing communication. The incorporation of specialty palliative care can be highly beneficial for seriously ill patients with complicated symptoms or other palliative-relevant needs and should be considered when available and appropriate. Palliative care and surgical practice align in many ways that can combine to produce the best patient outcomes.

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### Disclosures

None

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