



Care of the Cholangiocarcinoma Patient  
Clinical Practice Guideline:  
**FATIGUE IN BILIARY CANCER PATIENTS**

**GOALS/OUTCOMES:**

**A. Patient will demonstrate outcomes below:**

1. List medications taken for pain and verbalize understanding of when to call provider/nurse if pain is not tolerable
2. Understanding of signs and symptoms of infection and when to notify provider/nurse
3. List nonpharmacologic treatments, discuss with their provider treatments that may be of interest
4. List foods that appeal to them and make daily small nutritional and hydration goals
5. List signs and symptoms of dehydration and when to alert provider/nurse
6. List signs and symptoms of anemia and when to alert provider/nurse
7. Participate in activities during times of least fatigue
8. Participate in a gentle exercise program
9. Verbalize understanding of potential side effects of prescribed medications
10. Practice relaxation techniques during time of wakefulness
11. Actively participate in decision making and goals of care
12. Family/caregiver verbalize signs and symptoms of disease progression, e.g. increasing fatigue, and patient comfort goals

**ASSESSMENT/INTERVENTIONS**

**A. Assessment findings with associated reference numbers and evidence based rating:**

1. Treatment with chemotherapy/radiation 1,V-B; 2,V-B; 3,V-B; 5,V-B; 6,V-B 7,IV-A; 9,V-B
2. History of pain 2,V-B; 3,V-B; 6,V-B; 7,IV-A
3. Sleep/wake disturbances 1,V-B; 3,V-B; 4,V-B; 5,V-B; 6,V-B; 7,IV-A
4. Depression/anxiety 1,V-B; 2,V-B; 3,V-B; 6,V-B; 7,IV-A, 9,V-B
5. Disease progression 3,V-B; 7,IV-A; 9,V-B
6. Malnutrition 3,V-B; 7,IV-A; 9,V-B
7. Anemia 2,V-B; 3,V-B; 7,IV-A; 9,V-B
8. Systemic Inflammation 1,V-B; 9,V-B
9. Infection 2,V-B; 3,V-B; 9,V-B, 10,V-B
10. Surgical history 2,V-B; 3,V-B; 9,V-B
11. Medication side-effects 2,V-B; 3,V-B; 6,V-B; 8,V-B; 9,V-B
12. Comorbidities 3,V-B; 4,V-B; 6,V-B; 7,IV-A; 9,V-B

**B. Interventions related to assessment findings above with references and evidence based rating:**

1. Pharmacologic and Nonpharmacologic Treatments:
  - a. Pharmacologic : Psychostimulants, corticosteroids, antidepressants, benzodiazepines, pain control medications, modification of medication regimen 2, V-B; 3,V-B; 4,V-B; 7,IV-A; 9,V-B
  - b. Non-pharmacologic: Cognitive behavioral therapy, complementary and alternative (CAM) therapies, e.g. acupuncture, relaxation therapy, yoga, or massage, energy conservation, sleep hygiene, management of nutritional status, adequate hydration, cognitive behavioral therapy, gentle exercise program, education of the patient and family 2,V-B; 3,V-B; 4,V-B; 6,V-B; 7,IV-A; 8,V-B; 9,V-B
2. Opioid and nonopioid analgesics, tricyclic antidepressants for neuropathic pain, gentle exercise program, CAM therapies 3,V-B;4,V-B;7,IV-A



3. CAM therapies, behavioral therapies, sleep hygiene, relaxation therapy, gentle exercise program, pharmacologic therapy, e.g. psychostimulants, short term use of benzodiazepines, hypnotics, antipsychotics for delirium related sleep/wake disturbance, pain control, education of the patient and family 1,V-B; 2,V-B; 3,V-B; 4,V-B; 6,V-B; 7,IV-A
4. Cognitive behavioral therapy, antidepressants, CAM therapies, gentle exercise program, reduction in stress levels, support of patient to maintain quality of life and activity level, patient and family education 2,V-B; 3,V-B ;7,IV-A; 9,V-B
5. Patient and family education, maintenance of dignity and function, physical therapy and or a gentle exercise program if tolerated and supportive of patient goals and the patient has an adequate performance status, activity modification, relaxation techniques 3,V-B;;7,IV-A;9,V-B
6. Dietary consultation, patient and family education, prevention of weight loss, appetite stimulants, nutritional supplementation, adequate hydration, steroids, treatment of nausea/vomiting 2,V-B; 3,V-B ;7,IV-A; 8,V-B;9,V-B
7. Patient and family education, transfusion, erythropoietic growth factors, iron supplementation, treatment for low levels of B12, folate, treatment of underlying cause for anemia, e.g. occult blood loss 3,V-B;;7,IV-A;9,V-B
8. CAM therapies, e.g. yoga, mind-body therapeutic interventions 1,V-B
9. Supportive therapies, antipyretics, pharmacologic treatment of suspected infection, e.g. cholangitis, stent exchange 3,V-B;9,V-B; 10,IV-B
10. Patient and family education, energy conservation, pain control, distraction techniques, relaxation techniques, CAM therapies, physical or occupational therapy, adequate nutrition and hydration 2,V-B; 3,V-B
11. Patient and family education, assessment of benefit/harm of medications that increase sedation levels, CAM therapies, dosing changes of fatigue inducing medications or trial of alternative medications 3,V-B; 8,V-B;9,V-B
12. Patient and family education, energy conservation, treatment/management of comorbidities, e.g. hepatic, cardiac, respiratory, renal disease, or depression/anxiety, initiation of a gentle exercise program 7,IV-A; 8,V-B;9,V-B

## REFERENCES

1. Bower, J. (2007) Cancer related fatigue: Links with inflammation in cancer patients and survivors. *Brain Behav Immun.*, 21(7), 863-871. doi:10.1016/j.bbi.2007.03.013
2. Borneman, T. (2013). Assessment and management of cancer-related fatigue. *Journal of Hospice and Palliative Care Nursing*, 15(2), pp 77-86. doi:10.1097/NJH.0b013e318286dc19
3. Keeney, C., & Head, B. (2011). Palliative nursing care of the patient with cancer-related fatigue. *Journal of Hospice and Palliative Nursing*, 13(5), 270-278. DOI: 10.1097/NJH.0b013e318221aa36
4. Kvale, E., & Shuster, J. (2006). Sleep disturbance in supportive care of cancer: A review. *Journal of Palliative Medicine*, 9(2), 437-450. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16629573>
5. McMillan, S., Tofthagen, C., Choe, R., & Rheingans, J. (2015). Assessing symptoms experienced by patients with cancer: Occurrence, intensity, distress, interference, and frequency. *Journal of Hospice and Palliative Nursing*, 17(1), 56-65. doi:10.1097/NJH.000000000000123
6. Dambrosio, N., & Mazanec, P. (2013). "Nurse, I can't sleep!": Approaches to management of insomnia in oncology patients. *Journal of Hospice & Palliative Nursing*, 15(5), 267-275. doi: 10.1097/NJH.0b013e318296839b
7. National Comprehensive Cancer Network (NCCN) (2015). Nccn clinical practice guidelines in oncology: Cancer related fatigue.[pdf]. Retrieved from [http://www.nccn.org/professionals/physician\\_gls/f\\_guidelines.asp#fatigue](http://www.nccn.org/professionals/physician_gls/f_guidelines.asp#fatigue)
8. Mitchell, S., Hoffman, A., Clark, J., DeGennaro, R., Poirier, P., Robinson, C., & Weisbrod, B. (2014). Putting evidence into practice: An update of evidence-based interventions for cancer-related fatigue during and following treatment. *Clinical Journal of Oncology Nursing*, 18(6), 35-58, doi:10.1188/14.CJON.S3.38-58
9. Yennurajalingam, S., & Bruera, E. (2007). Palliative management of fatigue at close of life, "it feels like my body is just worn out". *JAMA*, 297(3), 295-304. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/17227981?dopt=Abstract>
10. Huggett, M.T., Ghaneh, P. & Pereira, S.P. (2010). Drainage and bypass procedures for palliation of malignant diseases of the upper gastrointestinal tract. *Clinical Oncology*, 22(9), 755-763. doi:10.1016/j.clon.2010.08.001