



Care of the Cholangiocarcinoma Patient
Clinical Practice Guideline:

CARE OF THE PATIENT WITH BILIARY STENTS/DRAINS

GOALS/OUTCOMES:

1. Patient will verbalize and/or demonstrate outcomes below:
2. Patient and/or family will be able to describe their disease and disease process
3. Patient and/or family will be able to describe signs/symptoms of disease and treatment with biliary stents/drains to monitor for and report to clinical team
4. Patient and/or family will have a working knowledge for caring for their biliary drainage system.
5. Patient and/or family will be able to list the common side effects of blockage of stents or drainage catheter.
6. Patient and/or family will be able to list the measurements to prevent and manage side effects of their biliary drainage catheter

ASSESSMENT/INTERVENTIONS

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

1. Document onset and presence of symptoms of jaundice, pale stool, dark urine, pruritus, abdominal pain, fever, weight loss, fatigue, current and past treatments, medications and vital signs. 2,IV-A; 3,IV-A
2. Monitor labs, including CBC, prothrombin time, bilirubin, alkaline phosphatase, serum transaminases; Monitor Imaging – could include Color-Doppler Ultrasound, Contrast CT of abdomen, chest and pelvis, MRI, MRCP, ERCP to assess for biliary obstruction. 2,IV-A; 3,IV-A
3. Identify via physician documentation/communication, the type of biliary drainage system in use: External biliary drainage catheter placed through the skin into bile ducts above the blockage; Internal-external biliary drainage catheter placed through the skin into bile ducts across the obstruction; Internal biliary drainage (stenting), uses a self-expanding metal stent (SEMS) or endoscopic retrograde biliary drainage (ERBD) plastic tube(s) to hold blocked area (s) open. 1,V-A; 5,I-B
4. Assess for complications of stents that result from complications of endoscopy and
5. Sedation, recurrent sepsis, biliary obstruction, stent occlusion and disease progression. 1,V-A; 2,IV-A
6. Document patient's comprehension regarding type of biliary drainage system and precautions. 1,V-A

B. Interventions related to assessment findings above with associated reference numbers and evidence based rating:

1. Confirm with MD if jaundice caused by bile duct obstruction and note differential diagnosis which includes: nonobstructive jaundice such as diffuse hepatocellular disease such as cirrhosis, hepatitis, and wide spread metastatic disease, or hemolytic anemia, metabolic deficiency. Or obstructive jaundice causes including malignancy of pancreas, ampulla, or biliary tract, choledocholithiasis, pancreatitis, iatrogenic strictures of biliary tree, tumors metastatic to biliary epithelium, sclerosing cholangitis, hepatic tumors adjacent to the hilum, perihepatic lymphadenopathy, other causes of cholangitis. 3,IV-A
2. Routine biliary drainage before assessing resectability should be avoided except in certain situations such as acute cholangitis. 2,IV-A
3. External biliary drainage- Observe drainage from catheter attached to drainage bag; Internal-external biliary drainage-one end of catheter sits in small intestine, the other comes out of the patient's body attached to a drainage bag; Internal biliary drainage catheter is removed within 24 hours if stent is successful. Establish evaluation criteria for successful in assisting patient to achieve the desired goals. 1,V-A

Care of the biliary catheter: External Drainage Catheter – typically 400 – 1000 mL of bile colored drainage daily into drainage bag. Internal/External Drainage Catheter – drainage will vary. In many cases, doctor will advise patient to cap the catheter and not attach drainage bag to the catheter. Then all drainage is internal. Once a week, the dressing, stopcock, and drainage bag should be changed. Change dressing more often if it becomes wet, loose, or soiled. There should be no redness, areas of broken skin, or rash of the skin around the catheter. Advise patients the fluid should not change color or consistency. Teach patients to inspect the catheter and drainage bag for kinks in the tubing. Some physicians advise patients to flush the catheter daily. Others advise patients to flush catheter if it becomes obstructed. If instructed to flush catheter, flush with 10mL prefilled



normal saline. Advise patients to hold and contact their clinical team if they have pain, feel resistance, or if there is leaking around the catheter. 1,V-A

4. Patients should also be instructed to contact their clinical team or seek medical attention if they experience fever, shaking chills, or increased jaundice. 1,V-A; 2,IV-A
5. Avoid movements that involve aggressive stretching from side or side or continual bending. Do not swim with the catheter. Patients can take showers with proper covering of catheter site. Do not allow the tubing to become kinked. Teach patients not to lie on the catheter when sleeping. Because bile depletes sodium, physician may order to replace salt daily with 1 quart of a sports drink. Teach patients safe ambulation techniques due to possible postural hypotension when bile drainage is greater than 500 ml per day. Evaluate at each visit, patients understanding of care of the biliary drainage system. 1,V-A

REFERENCES

1. Cote Robson. About Your Biliary Drainage Catheter. Memorial Sloan Kettering Patient Education. 2009. <https://www.mskcc.org/pdf/cancer-care/psatient-education/caring-your-biliary-drainage-catheter>
2. Khan et al. Guidelines for diagnosis and treatment of cholangiocarcinoma: an update. *Gut* 2012;61: 1657-1669.
3. Lalani et al. Guidelines of ACR Appropriateness Criteria Jaundice [online publication]. Reston (VA): ACR; 2013. 9p.
4. Prat et al. A randomized trial of endoscopic drainage methods for inoperable malignant strictures of the common bile duct. *Gastrointestinal Endosc.* 1998 Jan; 47(1):1-7.
5. Raju et al. Optimum palliation of inoperable hilar cholangiocarcinoma: comparative assessment of the efficacy of plastic and self-expanding metal stents. *Dig Dis Sci.* 2011 May; 56(5): 1557-64.