

# Cholangiocarcinoma

## Treatment, outcomes, and nutrition overview for oncology nurses

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**BACKGROUND:** Cholangiocarcinoma is a cancer that arises from the bile ducts inside or outside of the liver. Although it is a rare cancer, cholangiocarcinoma appears to be rising in incidence in the United States and worldwide.

**OBJECTIVES:** The diagnosis of cholangiocarcinoma frequently presents with biliary emergencies from diagnosis through treatment. The lethality of this cancer stems, in part, from challenges with supportive care during treatment. This article provides an overview of intrahepatic and extrahepatic cholangiocarcinoma, including identification of risk factors, differences in treatment approaches, palliation of symptoms, and insight into commonly asked questions.

**METHODS:** A comprehensive review of the current literature regarding incidence, prevalence, and treatment of cholangiocarcinoma was conducted.

**FINDINGS:** Nursing literature regarding cholangiocarcinoma is scarce. Studies that focus on nursing care, symptom management, and nursing management of patients with biliary obstruction are needed. Nutrition and palliative care management of patients with cholangiocarcinoma are key areas of nursing management.

### KEYWORDS

cholangiocarcinoma; bile duct cancer; nursing; treatment; management; nutrition

### DIGITAL OBJECT IDENTIFIER

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**CHOLANGIOCARCINOMA IS A RARE AND DEADLY CANCER** arising from the bile ducts. Two primary types of cholangiocarcinoma exist: intrahepatic or proximal (bile ducts within the liver proximal to the secondary branches of the left and right hepatic ducts) and extrahepatic (bile ducts outside of the liver) (Blechacz, 2017). Extrahepatic cholangiocarcinoma can be further classified into perihilar, hilar, or Klatskin cholangiocarcinoma (between the secondary branches of the right and left hepatic ducts and the common hepatic duct proximal to the cystic duct) and distal cholangiocarcinoma (arising from the common bile duct until the origin of the ampulla of Vater) (see Figure 1).

More than 95% of bile duct cancers are malignant adenocarcinomas, with five-year survival rates of 2%–30%. The incidence of cholangiocarcinoma ranges from 0.4–1.8 per 100,000 in the United Kingdom, Europe, and Australia and 0.6–1.2 per 100,000 in the United States (Azodo, Parks, & Garden, 2014; Castro, Koshiol, Hsing, & Devesa, 2013; Njei, 2014). However, inaccuracy and inconsistency in diagnostic classification systems remain a concern with cholangiocarcinoma and hinder interpretation of these estimates (Khan et al., 2012). The majority of cases in the Western world are classified as sporadic, but known risk factors may contribute to the development of cholangiocarcinoma. Known risk factors for cholangiocarcinoma include primary sclerosing cholangitis, biliary duct cysts, hepatolithiasis, and toxins, whereas less-established risk factors consist of inflammatory bowel disease, hepatitis B and C, cirrhosis, diabetes, obesity, alcohol, smoking, and host genetic polymorphism (Azodo et al., 2014; Blechacz, 2017). In Southeast Asia, liver fluke (*Opisthorchis viverrini*) is a food-borne trematode and a significant public health issue, particularly in Thailand (Sripa et al., 2012). This organism remains viable in the traditional fish dishes served in Southeast Asia. It is classified as a group 1 carcinogen by the World Health Organization (IARC Working Group on the Evaluation of Carcinogenic Risks to Humans, 2012) because it is the major etiology of bile duct cancer. As a result of this liver fluke, the Khon Kaen province of northeast Thailand has the highest incidence of cholangiocarcinoma in the world (Shin et al., 2010). Biliary tract infections are primary risk factors for cholangiocarcinoma and largely responsible for the significantly higher incidence rates (Azodo et al., 2014).

Cholangiocarcinoma is a challenging malignancy to diagnose and treat, and further research is needed, with results from clinical trials. Cholangiocarcinoma often is grouped with other primary liver cancers, pancreatic cancer, or gallbladder cancer to obtain enough clinical significance to develop a clinical trial. This lack of evidence contributes to challenges oncology nurses face in caring for these patients and managing symptoms