

Supplementary Table 1 Search terms utilized in the targeted literature search

	Search terms
Disease-related	“biliary tract cancer” OR “biliary tract carcinoma” OR “bile duct cancer” OR “bile duct carcinoma” OR “cholangiocarcinoma”
Patient experience/PRO terms	“patient reported” OR “patient-reported” OR “quality of life” OR “quality-of-life” OR “psychometric” OR “patient experience” OR “PRO” OR “patient-reported outcome measures” OR “instrument(s)” OR “patient outcome assessment” OR “questionnaire(s)” OR “interview(s)” OR “patient impact”

PRO patient-reported outcome

Supplementary Table 2 Procedures and pharmaceutical therapies received as part of BTC treatment by patients participating in qualitative interviews, overall and by disease stage

Clinical characteristic	All patients (N = 23)	Disease stage			Disease subtype		
		Early (n = 3)	Locally advanced (n = 11)	Metastatic (n = 9)	Intrahepatic (n = 17)	Gallbladder (n = 1)	Perihilar (n = 5)
Procedures received							
Biliary stenting	4	0	3	1	2	0	2
Hepatic resection	6	1	4	1	5	1	0
Pancreaticoduodenectomy	1	0	1	0	0	0	1
Bile duct resection	2	0	2	0	1	1	0
Gall bladder resection	3	1	2	0	2	1	0
Hepatic resection	6	1	4	1	5	1	0
Pancreaticoduodenectomy	1	0	1	0	0	0	1
Bile duct resection	2	0	2	0	1	1	0
Selective internal radiotherapy	2	0	1	1	2	0	0
Other ^a	7	1	4	2	6	0	1
None	3	0	0	3	3	0	0
Current treatment							
Gemcitabine	2	0	1	1	1	0	1
Cisplatin	1	0	1	0	1	0	0
Oxaliplatin	2	0	1	1	2	0	0
Capecitabine	2	0	1	1	2	0	0
Fluorouracil	1	0	0	1	1	0	0
Pembrolizumab	1	0	0	1	1	0	0
Experimental therapy ^b	3	0	0	3	3	0	0
Other therapy ^c	1	0	0	1	1	0	0
Previous treatment							
Gemcitabine	14	1	5	8	11	0	3
Cisplatin	13	1	3	9	10	0	3
Oxaliplatin	1	0	0	1	1	0	0
Capecitabine	5	1	2	2	5	0	0
Fluorouracil	1	0	0	1	1	0	0
Pembrolizumab	1	0	0	1	1	0	0

Other therapy ^c	3	0	2	1	2	0	1
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^aOther procedures include chemoradiation, external beam radiation, percutaneous microwave ablation, stereotactic body radiation therapy

^bExperimental therapy includes Abraxane, FGFR2, INCB 54828-202 (Pemigatinib)

^cOther therapy, carboplatin

BTC biliary tract cancer

Supplementary Table 3 Signs/symptoms deemed to be treatment-related by patients

Concept	Patients mentioning impact <i>n</i> (%)	Patients linked symptom to treatment (%)	Patients did not link symptom specifically to disease or treatment (%)
Hand-foot syndrome (peeling of skin on hands and feet)	10 (43)	43	0
Hair loss	15 (65)	39	26
Dry mouth	15 (65)	35	30
Change in taste	17 (74)	30	43
Neuropathy/numbness or tingling in hands and feet	10 (43)	30	13
Mouth sores	7 (30)	22	9
Nail changes	5 (22)	17	4
Dry eyes	5 (22)	17	4
Vision changes	3 (13)	13	0
Sensitive teeth (including gums)	4 (17)	9	9
Problems with hearing	2 (1)	9	0
Blood sepsis	2 (1)	9	0
Hair growth/change	5 (22)	4	17
Stomach pain	3 (13)	4	9
Headaches	2 (1)	4	4
Intestinal gas	1 (1)	4	0

Salient concepts (defined as mentioned by > 50% of patients ($N = 23$) and an average disturbance rating of > 5) are in bold