EPH210

Landscape of Intrahepatic Cholangiocarcinoma (IHC) in Brazilian Public Healthcare System and Monitoring of the Technological Horizon

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INTRODUCTION

Cholangiocarcinoma is a relatively uncommon malignant neoplasm with poor prognosis.[1] In 2016, a national guideline was published for the management of bile duct cancers. Recommended systemic therapies include chemotherapy with cisplatin, oxaliplatin, gemcitabine, fluoropyrimidines, taxanes or irinotecan.[2]

OBJECTIVES

Identify current IHC data from the Brazilian Public Healthcare System - Unified Health System (SUS) - and drug products in late-stage development (DLSD) for the treatment of advanced cholangiocarcinoma with recent or near-term future potential regulatory approval in Brazil.

METHODOLOGY

Retrospective analysis of diagnoses, hospitalizations, costs, deaths, and demographic data of IHC patients (ICD-10 code 22 and 22.1), considering out and in-patient data from the SUS database[3] between January 2018 and December 2023. A limited search was conducted on May 22, 2024, using Cortellis Competitive Intelligence[4] and clinicaltrials.gov for DLSD for the treatment of advanced cholangiocarcinoma.

RESULTS

The number of diagnoses increased between 2018 and 2023, from 1,951 to 3,712 cases for ICD-10 code C22 (Figure 1). 54% of patients were women and the main age group was 65-69 years old (Figure 2). The number and cost of hospitalization also increased over the period, reached 1,476 and R$ 2,612,153.49, respectively, in 2023 (Figure 4). Correspondingly, the number of deaths increased 13.64% in the period (Figure 3). Five new drugs launched, two in pre-registration process and ten in late-stage clinical trials were identified (see Table 1).

Figure 1: IHC Diagnosed Patients in SUS (ICD-10 code C22)

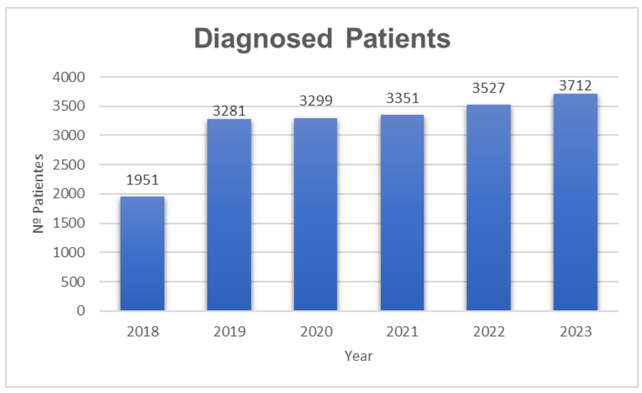


Figure 2: Patients Age Distribution (ICD-10 code C22.1)

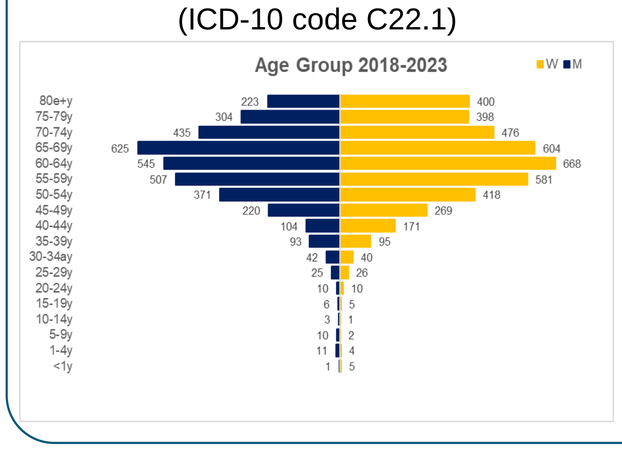


Figure 3: Deaths Across the Country (ICD-10 code C22.1)

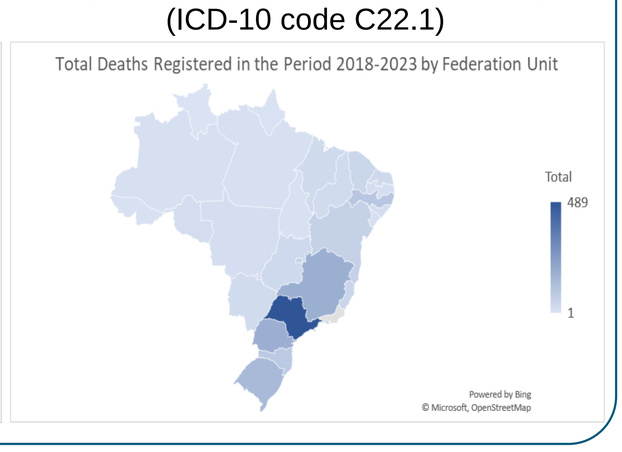
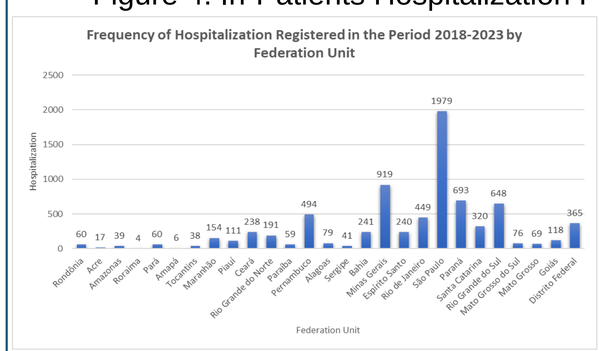


Figure 4: In-Patients Hospitalization Frequency and Costs (ICD-10 code C22.1)



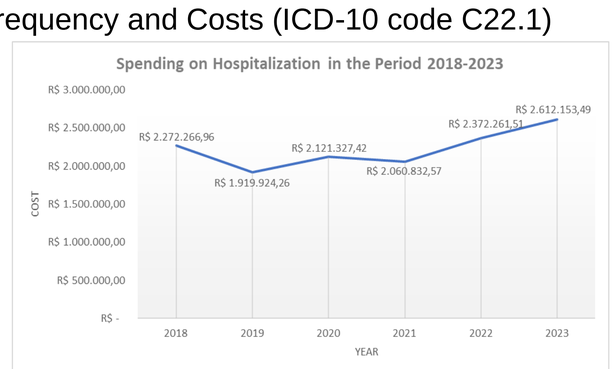


Table 1: Products recently launched or in late-stage development for advanced cholangiocarcinoma

Product	Company	Highest Development Status	Status in Brazil	Notes
Imfinzi (durvalumab)	AstraZeneca	Launched (Numerous countries)	Launched & approved for this indication	• Indication: In combination with gemcitabine and cisplatin, as treatment of adult patients with locally advanced or metastatic biliary tract cancer.
Keytruda (pembrolizumab)	Merck & Co	Launched (Numerous countries)	Launched, but not approved in this indication specifically	• Indication in the US: In combination with gemcitabine and cisplatin, as treatment of adult patients with locally advanced or metastatic biliary tract cancer. • Indication in Brazil (tumour agnostic indication only): As monotherapy, is indicated for the treatment of adults with MSI-H or dMMR unresectable or metastatic tumours (including biliary cancer), with disease progression during or after a prior therapy.
Pemazyre (pemigatinib)	Incyte Corporation	Launched (Numerous countries)	Not available, but submitted to ANVISA	• Accelerated approval in the United States. • Indication in the US: For the treatment of adults with previously treated, unresectable locally advanced or metastatic cholangiocarcinoma with a fibroblast growth factor receptor 2 (FGFR2) fusion or other rearrangement.
Lytgobi (futibatinib)	Taiho Pharmaceutical	Launched (Numerous countries)	Not available	• Accelerated approval in the United States. • Indication in the US: For the treatment of adult patients with previously treated, unresectable, locally advanced or metastatic intrahepatic cholangiocarcinoma harboring FGFR2 gene fusions or other rearrangements.
Tibsovo (ivosidenib)	Les Laboratories Servier	Launched (Numerous countries)	Launched & approved for this indication	• Indication in Brazil: For the treatment of adult patients with previously treated, locally advanced or metastatic cholangiocarcinoma with an isocitrate dehydrogenase-1 (IDH1) mutation.
Zanidatamab	Jazz Pharmaceuticals	Pre-registration	N/A	• Pre-registration in the US based on the single-arm, phase 2, HERIZON-BTC-01 trial (NCT04466891). Included multiple study sites. • In patients with human epidermal growth factor receptor 2 (HER2)-amplified, inoperable and advanced or metastatic biliary tract cancer.
Tasurgratinib	Eisai Co., Ltd.	Pre-registration	N/A	• Pre-registration in Japan based on the single-arm, phase 2, Study 201 trial (NCT04238715). Only included sites in Japan and China. • In patients with unresectable cholangiocarcinoma with FGFR2 gene fusion who failed gemcitabine-based combination chemotherapy.
Tinengotinib	TransThera Sciences Inc.	Phase 3 (Numerous countries)	N/A	• NCT05948475; Estimated primary completion May-2026, study completion Aug-2026. • In patients with FGFR-altered, chemotherapy- and FGFR Inhibitor refractory/relapsed cholangiocarcinoma.
TQB2450	Chia Tai Tianqing Pharmaceutical Group Co., Ltd.	Phase 3 (China only)	N/A	• NCT04809142; Recruitment status listed as unknown (last updated Mar 22, 2021). • In combination with anlotinib as second-line treatment in patients with advanced biliary cancer.
Envafolimab	3D Medicines Co., Ltd.	Phase 3 (China only)	N/A	• NCT03478488; Estimated primary and study completion Jul-2024. • In combination with gemcitabine-based chemotherapy for the treatment of patients with previously untreated locally advanced or metastatic biliary tract cancer.
Toripalimab	Shanghai Junshi Bioscience Co., Ltd.	Phase 3 (China only)	N/A	• NCT05342194; Estimated primary and study completion May-2027. • In combination with lenvatinib and gemcitabine-based chemotherapy compared with gemcitabine-based chemotherapy as first-line treatment for unresectable advanced intrahepatic cholangiocarcinoma.
TQB3454	Chia Tai Tianqing Pharmaceutical Group Co., Ltd.	Phase 3 (China only)	N/A	• NCT05987358; Not yet recruiting, estimated primary and study completion Dec-2026. • For the treatment of patients with advanced, Isocitrate Dehydrogenase 1 (IDH1) mutated biliary tract cancer who have failed previous treatment with gemcitabine and fluorouracil (and/or platinum-based) drug therapy.
Surufatinib	Hutchison Medipharma Limited	Phase 2b/3 (China only)	N/A	• NCT03873532; Recruitment status listed as unknown (last updated Feb 13, 2020). • As a second-line therapy in patients with unresectable or metastatic biliary tract cancer.
CTX-009	Compass Therapeutics	Phase 2/3 (US only)	N/A	• NCT05506943; Estimated primary completion Jul-2025, study completion Dec-2025. • In combination with paclitaxel in patients with previously treated, unresectable advanced or metastatic biliary tract cancers.
Melphalan via Hepatic Delivery System (HDS)	Delcath Systems	Phase 2/3 (US only)	N/A	• NCT03086993; Recruitment status listed as unknown (last updated Mar 24, 2022). • High dose chemotherapy delivered specifically to the liver after induction with cisplatin and gemcitabine in patients with unresectable intrahepatic cholangiocarcinoma and without clinically significant extra-hepatic disease.
D07001	Innopharmax Co., Ltd.	Phase 2/3 (Taiwan only)	N/A	• NCT05065957; Estimated primary completion Jul-2026, study completion Dec-2026. • Oral formulation of gemcitabine in combination with capecitabine for the treatment of patients with advanced biliary tract cancer after gemcitabine and cisplatin-based treatment failure.
SMT-NK	SMT bio-Co., Ltd.	Phase 2/3 (Korea only)	N/A	• NCT05429697; Estimated primary completion Jan-2025, study completion Jun-2026. • Combination therapy of SMT-NK (allogeneic natural killer cells) and pembrolizumab in patients with advanced biliary tract cancer.

CONCLUSION

A progressive increase in diagnoses, number and cost of hospitalization and deaths was observed. According to the data, the availability of new therapies could change the journey of advanced IHC patients in Brazil who, until recently, were solely treated with traditional chemotherapies.

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