

# COMPARING FACT AND EORTC QLQ MODULES FOR THE ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH HEPATOBIILIARY CANCERS

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## INTRODUCTION

The following quality of life (QoL) instruments are commonly employed to assess the impact of disease and treatment on patients with hepatobiliary cancers:

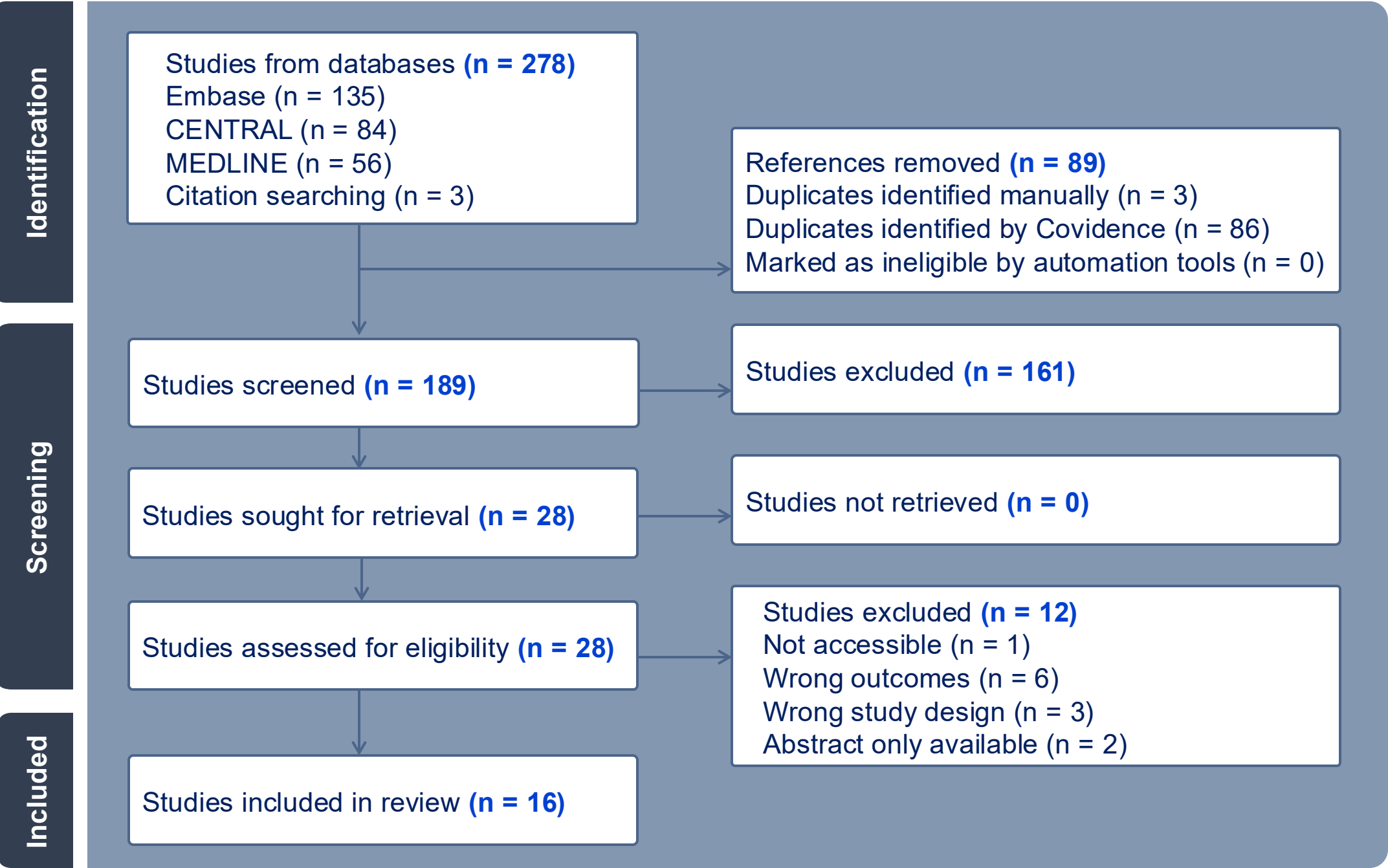
- European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire (QLQ) Liver Module (QLQ-LMC21)
- EORTC QLQ Hepatocellular Carcinoma-Specific Module (QLQ-HCC18)
- EORTC QLQ Biliary Tract Cancer and Gallbladder Cancer Module (QLQ-BIL21)
- Functional Assessment of Cancer Therapy–Hepatobiliary (FACT-Hep)

Developed between 2003 to 2011, these tools have since been evaluated across diverse cultural contexts and languages, potentially affecting their performance and validity. This systematic review aims to compare the validity, responsiveness, and reliability of the four instruments.

## METHODS AND MATERIALS

A literature search was performed in MEDLINE, Embase, and Cochrane CENTRAL from database inception till October 2024. Studies that evaluated the characteristics and psychometric properties of the specified QoL instruments were included (**Figure 1**).

Figure 1. PRISMA flow diagram



## RESULTS

Table 1. Characteristics of the EORTC and FACT QoL instruments

	QLQ-LMC21	QLQ-HCC18	QLQ-BIL21	FACT-Hep
# items (general + disease-specific)	30 + 21	30 + 18	30 + 21	27 +18
Response options	Likert Scale (1–4 inclusive)	Likert Scale (1–4 inclusive)	Likert Scale (1–4 inclusive)	Likert Scale (0–4 inclusive)
Recall period	Past 1 and 4 weeks	Past 1 and 4 weeks	Past 7 days	Past 7 days
Assessed subscales	emotional, nutritional, fatigue, pain	fatigue, body image, jaundice, nutrition, pain, fever, abdominal swelling, sex life	eating, jaundice, tiredness, pain, anxiety	Physical (PWB), social and family (SFWB), emotional (EWB) and functional (FWB) well-being; and hepatobiliary cancer subscale (HepCS)
Scoring	Scores range from 0-100, where higher scores reflect worse QoL.	Scores range from 0-100, where higher scores reflect worse QoL.	Scores range from 0-100, where higher scores reflect worse QoL.	Scores range from 0-180, where higher scores reflecting better QoL.
# translations	21	81	59	46

From 278 studies, 16 were included: 3 (18%) evaluated the QLQ-LMC21, 6 (36%) QLQ-HCC18, 2 (12%) QLQ-BIL21, and 5 (30%) FACT-Hep.

**Table 1** summarizes the characteristics of the 4 instruments. All were rigorously developed using a multiphase, standardised approach and shown to be psychometrically valid.

- QLQ-LMC21 and QLQ-BIL21: majority of patients were recruited from European countries, but race was not specified. QLQ-BIL21 was limited by the small sample size (n = 52) during Phase III of its development.
- QLQ-HCC18: despite including a greater proportion of East Asian participants, it lacked representation from other regions and races. Furthermore, challenges in assessing jaundice were identified in Asian patients.
- FACT-Hep: developed in the United States (US) and only validated in the US (90% Caucasian) and China.

## CONCLUSIONS

- All four QoL instruments used in hepatobiliary cancers were valid, responsive, and reliable. Each has its own strengths which may be more suitable for certain clinical contexts.
- Limitations included global applicability, lack of racial data, and instruments developed over a decade ago.
- Derivatives of FACT-Hep have since been developed: NFHSI-18 and FHSI-8.
- Future research should focus on further updating and refining these tools to ensure their cultural applicability and relevance in the changing landscape of treatment options.

## REFERENCES

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