

Contents

Guideline development group

Preface

Level of evidence

Grade of recommendation

Summaries of recommendation

Surveillance algorithm for hepatocellular carcinoma(Figure 1)

Treatment algorithm for hepatocellular carcinoma(Figure 2, 3)

Chapter 1 Prevention

Introduction

Section 1. Interferon therapy

RQ1 Does interferon therapy reduce the risk of development of liver cancer in patients with hepatitis C virus-related cirrhosis?

RQ2 Does interferon therapy reduce the risk of development of liver cancer in patients with chronic hepatitis C?

RQ3 Does interferon therapy reduce the risk of development of cancer in patients with hepatitis B virus-related cirrhosis?

RQ4 Does interferon therapy reduce the risk of developing cancer from chronic hepatitis B?

Section 2. Liver- supportive therapy

RQ5 Does Sho-saiko-to reduce the risk of developing cancer in patients with chronic hepatitis or cirrhosis?

RQ6 Does intravenous administration of glycyrrhizin reduce the risk of development of liver cancer in patients with chronic hepatitis C or liver cirrhosis?

Chapter 2 Diagnosis and surveillance

Section 1. Surveillance

Introduction

RQ7 What are the risk factors for hepatocellular carcinoma?

RQ8 Does regular screening of patients with risk factors for hepatocellular carcinoma improve the overall prognosis of hepatocellular carcinoma?

RQ9 Does hepatocellular carcinoma surveillance by measurement of serum alpha-fetoprotein alone improve the prognosis of patients with chronic hepatitis B?

RQ10 How should regular screening of patients with risk factors for hepatocellular carcinoma be performed?

RQ11 How often should regular screening of patients with risk factors for hepatocellular carcinoma be performed?

Section 2. Tumor markers

- RQ12 Is measurement of two or more tumor markers useful for the diagnosis of hepatocellular carcinoma?
- RQ13 Is measurement of tumor marker levels useful for monitoring patients after the treatment of hepatocellular carcinoma?

Section 3. Diagnostic imaging

- RQ14 Which is the most appropriate diagnostic imaging method for hepatocellular carcinoma prior to treatment?
- RQ15 Is angiography necessary for the diagnosis of hepatocellular carcinoma?
- RQ16 Is use of contrast medium necessary for diagnostic imaging of hepatocellular carcinoma? If so, how should the contrast be used?
- RQ17 Compared to other examination methods, are nuclear medicine techniques, such as FDG-PET, more useful for diagnostic imaging of hepatocellular carcinoma?
- RQ18 Is a needle biopsy necessary for a definitive diagnosis of hepatocellular carcinoma?
- RQ19 Is B-mode ultrasonography useful for the diagnosis of hepatocellular carcinoma?
- RQ20 Are doppler ultrasonography, contrast-enhanced ultrasonography, and C02 ultrasonographic angiography useful for the qualitative diagnosis of hepatocellular carcinoma?

Chapter 3 Surgery

Section 1. Indications for surgery, surgical procedures, and treatment for recurrence

- RQ21 What is the most appropriate measure of liver function prior to hepatectomy?
- RQ22 What is the most effective treatment for small hepatocellular carcinomas?
- RQ23 Is major resection necessary for the treatment of noncirrhotic liver cancer?
- RQ24 What are the most effective treatment methods for recurrent hepatocellular carcinoma?

Section 2. Prognostic factors

- RQ25 What are the prognostic factors after hepatectomy in cases of hepatocellular carcinoma?
- RQ26 Does the width of the surgical margin affect the prognosis?
- RQ27 Does systematized hepatic resection contribute to the prognosis in cases of hepatocellular carcinoma?

Section 3. Perioperative management

- RQ28 How should blood products (red blood cell transfusion, frozen plasma, etc.) be used during the perioperative period?
- RQ29 How can we reduce the amount of bleeding during hepatic resection?

Section 4. Adjuvant therapy

- RQ30 Does preoperative adjuvant therapy improve the prognosis after hepatic resection in cases of hepatocellular carcinoma?
- RQ31 Does postoperative adjuvant therapy improve the prognosis after hepatic resection for hepatocellular carcinoma?

Section 5. Liver transplantation

- RQ32 Is TAE prior to liver transplantation beneficial?
- RQ33 What are the prognostic factors after liver transplantation?
- RQ34 Is liver transplantation (whole liver transplant from a brain-dead donor) more advantageous than hepatectomy in the treatment of hepatocellular carcinoma?
- RQ35 How does the recurrence pattern after liver transplantation differ from that after hepatectomy? How should recurrence be treated?

Chapter 4 Chemotherapy

- RQ36 What are the indications of chemotherapy in cases of hepatocellular carcinoma?
- RQ37 Is hepatic arterial infusion chemotherapy more useful than systemic chemotherapy for hepatocellular carcinoma?
- RQ38 Which are the effective chemotherapeutic drugs for hepatocellular carcinoma?
- RQ39 Is combination therapy with chemotherapeutic agents and interferon useful?
- RQ40 Is oral chemotherapy effective for the treatment of hepatocellular carcinoma?
- RQ41 Is hormone therapy effective?
- RQ42 Is single-drug therapy with interferon useful?
- RQ43 What are the prognostic factors and predictive factors of the outcome of chemotherapy?

Chapter 5 Transcatheter Arterial Chemo-embolization [TA(C)E]

- RQ44 What kinds of patients are suitable candidates for TA(C)E?
- RQ45 Which is the blood vessel that must be embolized in TA(C)E?
- RQ46 Is the injection of an emulsion of lipiodol and anti-cancer drug (lipiodolization) necessary for transcatheter arterial chemoembolization?
- RQ47 What are the anti-cancer drugs that must be used to make an emulsion of lipiodol and anti-cancer drugs (lipiodol emulsion)?
- RQ48 Under what circumstances should TA(C)E be repeated?
- RQ49 Is a combination of TA(C)E and other treatment methods effective?
- RQ50 Is TA(C)E indicated in patients with small hepatocellular carcinomas?

Chapter 6 Ablation

- RQ51 What kinds of patients are suitable candidates for PEI?
- RQ52 What kinds of patients are suitable candidates for PMCT?
- RQ53 What kinds of patients are suitable candidates for RFA?
- RQ54 Is the rate of local recurrence after PEI higher than that after RFA or PMCT?
- RQ55 Is the incidence of complications after RFA or PMCT higher than that after PEI?
- RQ56 Does combination of PEI and TA(C)E improve patients' outcome?
- RQ57 Is RFA under occlusion of hepatic artery or after TA(C)E associated with a better outcome?
- RQ58 Is RFA associated with a better patient outcome than PEI?

Search strategy/formula