Clinical Practice Guidelines

The purpose of this document is to assist physicians, patients, and other interested parties with the management of hepatocellular carcinoma (HCC). It is aimed at individual physicians in practice and at interdisciplinary groups that work with patients with this type of cancer. This is the first European joint Clinical Practice Guidelines on HCC in adults.

The incidence of HCC is increasing in Europe and the incidence of HCC is highest in the cohort of the elderly and in Japan, where the incidence of HCC is highest in the cohort of the elderly and in Japan, where the incidence of HCC is highest in the cohort of the elderly.

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In general, they should not be considered for participating in clinical practice guidelines, including management of pain, nutrition and psychological support. According to the treatment, it is essential to modify 26/August/2010. Available at: http://cancer.gov/cancertopics/pdq/lev...

1.9 million new cases of cancer and 6.7 million cancer-related deaths globally. The number of new cancer cases is expected to increase to 23.7 million in 2030, and cancer deaths to 14.0 million. This increase is largely attributable to the aging population and changes in lifestyle, including the increased prevalence of obesity and physical inactivity. The relationship between obesity and cancer is complex, with obesity being a risk factor for several types of cancer, including breast, colon, and prostate cancer. Physical inactivity, on the other hand, has been linked to a range of chronic diseases, including cancer. Thus, lifestyle interventions that promote physical activity and healthy eating are crucial in the prevention of cancer.

Transcatheter and surgical therapies

In addition, transcatheter therapies and surgical therapies are widely used in the management of cancer. Transcatheter therapies involve the use of catheters to deliver therapies to the tumor site, while surgical therapies involve the removal of the tumor. Both approaches have their advantages and disadvantages, and the choice of therapy depends on the specific characteristics of the tumor, the patient’s overall health, and the available resources.

In the case of liver cancer, transcatheter therapies such as embolization and chemoembolization are commonly used. These procedures involve the injection of a chemical agent or a mixture of chemotherapy and an embolizing agent into the tumor artery. The chemical agent destroys the tumor cells, while the embolizing agent disrupts the blood supply to the tumor, limiting its growth and progression. Chemoembolization is a more aggressive treatment, involving the injection of chemotherapy and an embolizing agent into the tumor artery, with the aim of destroying the tumor cells and disrupting its blood supply.

Surgical therapies for liver cancer include liver resection, which involves the removal of the affected part of the liver, and liver transplantation, which involves the replacement of the affected liver with a healthy organ. Both procedures require a high level of skill and expertise, and are associated with significant risks and complications. Therefore, they are typically reserved for patients with early-stage liver cancer and good liver function.

In conclusion, the management of liver cancer requires a multidisciplinary approach, with a combination of medical, surgical, and transcatheter therapies. The choice of therapy depends on various factors, including the stage of the disease, the patient’s overall health, and the availability of resources. Advances in diagnostic and therapeutic technologies are continually improving the outcomes for patients with liver cancer. However, more research is needed to improve the efficacy of current treatments and to develop new therapies that are more effective and less toxic.
Clinical Practice Guidelines

Staging systems
• Diagnosis of HCC is based on non-invasive criteria or pathology

• Tumor recurrence represents the major complication of resection and

• Internal radiation with tamoxifen
• Chemoembolization is recommended for patients with BCLC stage A

Chemoembolization is discouraged in patients with decompensated liver function as standard therapy. Further research trials are needed to establish a consistent evidence-based practice.

Local ablation with radiofrequency or percutaneous ethanol injection is considered the standard of care for patients with BCLC 0-A tumors cannot be recommended and should be explored in the context of phase II studies.

Liver Transplantation

• Selective intra-arterial chemotherapy or lipiodolization are not

• Indirect surrogates

Selective intra-arterial chemotherapy or lipiodolization are not commonly used in the first-line treatment of HCC. Further research is needed to establish the role of these interventions in different settings.

Strong evidence of the role of imaging in the management of HCC is ongoing. Current guidelines recommend the use of contrast-enhanced ultrasound as a first-line imaging modality, especially in suboptimal settings. The role of other imaging techniques, such as magnetic resonance imaging and computed tomography, is under investigation.

Clinical Practice Summary

CI = confidence interval
CI 95% = confidence interval 95%

The evidence level is based on evidence and recommendation grading systems.

* Evidence A: Consensus of experts, multiple randomized controlled trials, or large registry data

** Evidence B: Consensus of experts, case series, or well-designed cohort studies

*** Evidence C: Consensus of experts, case reports, or other case series

Healthcare providers are encouraged to consult the latest published guidelines and clinical practice guidelines for the most up-to-date recommendations.
قد لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.

**جدول (B1): تصنيف مستويات الدلالة والتوصية (حسب نظام تصنيف GRADE):**

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**الملاحظات:**
1. ضعف التوصيات مع مقدار أقل من الدلالة: ككلفة أعلى أو استهلاك الموارد.
2. التوصيات أضعف.

**الجدول 1A: ترتيب المؤثرات على قوة التوصية: جودة الدلالة والنتائج المفضلة المهمة بالنسبة للمريض والكلفة **

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**الشكل 1:** نسب انتشار سرطان الكبد الأولي حسب التوزع الجغرافي في أوروبا. والجدول يظهر نسب الانتشار المضبوطة حسب العمر لكل 100000 حالة. سرطان كبد في أوروبا في عام 2008. تتعلق شدة الثون في الصورة بنيابة انتشار الخطر ضمن كل دولة.
Diagnosis of HCC is based on non-invasive criteria or pathology. Due to the nature of HCC, transplantation is considered the standard of care for patients with BCLC 0-A tumors. In addition, the "up-to-seven" in patients without microvascular invasion achieves validation of the model when compared to other staging systems. For tumors that are 8% or larger, the model can be used to predict 5-year survival. In patients with tumors smaller than 8%, a B score is considered the standard of care. For smaller tumors, a "wait and see" approach is recommended, with follow-up scans every six months, with a scan or dynamic contrast-enhanced MRI recommended. Diagnosis should be based on the presence of a solitary nodule.
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Table 1A. Levels of evidence according to study design and end-points of study design. Meta-analyses of randomized studies are placed in the same category as the original studies.

- Category 1: Evidence from meta-analyses of randomized studies
- Category 2: Evidence from randomized studies
- Category 3: Evidence from non-randomized studies
- Category 4: Evidence from expert opinion

Example:
- Tumor response rate
- Progression-free survival

Note: The table provides a comprehensive overview of the levels of evidence for various outcomes based on study design and end-points.
Diagnosis

• Pathological diagnosis of HCC is based on the recommendations

Peri-operative mortality of liver resection in cirrhotic patients is 15%.

Child-Pugh/BCLC staging systems

(• Evidence 3A; recommendation 2C)

Staging systems

Diagnosis

• Evidence 3A; recommendation 1B

Child-Pugh

BCLC staging

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The burden of cancer is increasing worldwide. Each year there are 10.9 million new cases of cancer and 6.7 million cancer-related deaths [1]. The main risk factors include tobacco use, alcohol consumption, obesity, and physical inactivity. Vaccination against hepatitis B is recommended to all people aged 19 years or older [2].

Patients at BCLC D stage should receive palliative support and may be candidates for systemic chemotherapy [3].

In the context of HCC surveillance, the main objective is to prevent progression to cirrhosis, and hence HCC development [4]. Vaccination against hepatitis B is recommended to all individuals [5].

In summary, the pattern of HCC occurrence has a clear geographical distribution, with the highest incidence rates in East Asia, sub-Saharan Africa, and Southeast Asia [6]. The incidence of HCC is highest in the cohort of patients with chronic liver disease, especially those with cirrhosis [7].

Levels of Evidence for Adult and Pediatric Cancer Treatment

Level 1: Randomized controlled clinical trials or meta-analyses evaluating the efficacy of interventions

Level 2: Observational studies, cohort studies, case-control studies, or non-randomized trials

Level 3: Expert opinion, guidelines, or consensus statements

Recommendation 2B: If the patient is at high risk (e.g., cirrhosis due to hepatitis C infection), consider liver transplantation as a management option.
Treatment allocation is based on the BCLC allocation system.

The BCLC staging system is recommended for prognostic prediction. Other staging systems applied alone or in combination with BCLC are:

Peri-operative mortality of liver resection in cirrhotic patients is 30-60% in the first 30 days and 50% at 1 year. This staging system can be applied to most HCC patients, as long as the classification of the disease is correct.

Chemoembolization is recommended for patients with BCLC stage 2A. Local ablation with radiofrequency or percutaneous ethanol injection is also recommended. Other ablative therapies, such as microwave or cryoablation, are still considered standard treatments for HCC.

Additional staining can be considered to detect progenitor cell markers and the survival status of patients with HCC. A recent study showed that GPC3 expression is associated with a more aggressive form of HCC.

In conclusion, the management of HCC is multifaceted and requires a multidisciplinary approach.

Clinical Practice Summary

The BCLC staging system is recommended for prognostic prediction and trial design. Due to the nature of HCC, transplantation is rarely considered as a treatment option. This staging system can be applied to most HCC patients, as long as the classification of the disease is correct.

This staging system takes into account the extent of extrahepatic spread, which is a significant factor in determining the prognosis of patients with HCC.

The main ablative therapy in tumors less than 5 cm is ablation. Ablation is preferred over surgery due to its lower complication rate and better long-term outcomes.

In conclusion, the management of HCC is multifaceted and requires a multidisciplinary approach.
The burden of cancer is increasing worldwide. Each year there are an estimated 9.6 million new cases and 7.6 million deaths. The most commonly diagnosed cancers are lung, breast, colorectal, prostate, and melanoma. In 2018, cancer accounted for 8.8% of all deaths in the world. In 2018, the top five causes of death worldwide were ischemic heart disease, stroke, lower respiratory infections, chronic obstructive pulmonary disease, and road traffic injuries. Furthermore, there were an estimated 9.6 million new cases and 7.6 million deaths due to cancer in 2018. In 2018, 7% of all new cancer cases were found in the Americas, 27% in Europe, 30% in Southeast Asia, 19% in Africa, and 16% in the Eastern Pacific. In 2018, the most common cancers in men were lung, colorectal, prostate, and melanoma, while in women, the most common cancers were breast, colorectal, cervical, and melanoma. The 5-year survival rate for cancer in the United States is 60%. Some of the major cancer prevention strategies include: vaccination, lifestyle modifications such as diet and exercise, screening and early detection, and the use of chemopreventive agents.
The staging systems in HCC should have outcome prediction and further work. (105)

In the evaluation of the pathological malignancy of the liver, we found that the correlation of the vascular invasion of the liver is strongly associated with the malignancy of the liver lesion (105).

The accuracy of the staging of the liver lesion is strongly related to the malignant pathological index. (105)

The tumor stage, liver function, and imaging features (K19 and EpCAM) or assess neovascularisation (CD34) are believed to have a significant impact on the outcome of HCC. (104)

Evidence 2A; recommendation 1B

Liver Transplantation

The use of drug-eluting beads has shown similar response rates to RFA and LITT (113). These results suggest that drug-eluting beads may be a viable alternative to RFA and LITT for the treatment of HCC. However, further studies are needed to confirm these findings. (113)

Evidence 1iiA; recommendation 1B

The "up-to-seven" in patients without microvascular invasion achieves approximately 3% and significantly impacts the survival of patients with HCC. (113)

Evidence 2D; recommendation 2C

The "up-to-seven" in patients without microvascular invasion achieves approximately 3% and significantly impacts the survival of patients with HCC. (113)

Evidence 2A; recommendation 1B

Whether they can be considered as competitive alternatives to current therapies, such as RFA and LITT, is unclear. (113)

Evidence 1iiA; recommendation 1B

The "up-to-seven" in patients without microvascular invasion achieves approximately 3% and significantly impacts the survival of patients with HCC. (113)

Evidence 2A; recommendation 1B

122,133 (113)
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919

Barcelona Clinic 

Vaccination against hepatitis B is recommended to all

The incidence of HCC is increasing in Europe and

application of antiviral therapies should follow the EASL

recommendation 2B

Clinical Practice Guidelines

BCLC

Child

Pugh

M.J. of the hepatic capsule (modified by Child-Pugh classification)

vaccinated patients. The efficacy of this vaccine

is associated with the absence of hepatitis B viral

DNA. The other two classes, B and C, are more

likely to develop HCC. Therefore, vaccination

against hepatitis B is recommended to all

patients with chronic HBV infection. [iii]

Non-consecutive cases

Non-blinded treatment delivery

Double-blinded treatment delivery

(iii) Non-consecutive cases

(ii) Non-blinded treatment delivery

(i) Double-blinded treatment delivery

The incidence of HCC increases progressively with advancing

age in all populations, reaching a peak at 70 years [5]. In Chinese

cancer patients with HCC, it is often difficult to establish the

correct stage of the disease due to the lack of specific symptoms.

In addition, the presence of cirrhosis in these patients can

further complicate the staging process. Therefore, it is important

to adopt a multidisciplinary approach to the management of HCC

in Chinese patients. [i]

(iii) Non-consecutive cases

Barcelona Clinic

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In addition, the presence of cirrhosis in these patients can

further complicate the staging process. Therefore, it is important

to adopt a multidisciplinary approach to the management of HCC

in Chinese patients. [i]
The BCLC staging system is recommended for prognostic prediction. The pathological diagnosis of HCC is based on the recommendations. Non-invasive criteria can only be applied to cirrhotic patients and are expected to be 2-3%.

The tumor-to-embryo ratio is not ready for clinical application. Molecular abnormalities is not ready for clinical application.

This staging system can be applied to most HCC patients, as expected to be 2-3%.

Survival and disease progression data and tumor response rates, even though impact on long-term survival and disease progression should follow RECIST criteria.
The burden of cancer is increasing worldwide. Each year there are
more new cases of cancer and deaths from cancer. In 2018, there were
18.1 million new cases and 9.6 million deaths. Cancer is the second
leading cause of death worldwide, behind only cardiovascular dis-
orders. It is estimated that by 2030, the number of new cases will
reach 21.4 million, with 12.9 million deaths. The most common types of

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cancer are lung, breast, colorectal, prostate, and stomach. Cancer
is a major global health problem.

In the context of this guideline, the term "cancer" refers to malignancies
described in the International Classification of Diseases for Oncology
(Third Edition - ICD-O-3) and includes lymphomas when applicable.

**Clinical Practice Guidelines**

1. **Incidence and Prevalence**
   - Cancer incidence rates vary widely across regions and populations.
   - In some high-income countries, cancer incidence has been increasing,
     while in others it has been stable or decreasing.

2. **Etiology and Risk Factors**
   - Many factors contribute to the development of cancer, including
     genetic predisposition, environmental exposures, and lifestyle habits.
   - Regular physical activity, healthy diet, avoidance of tobacco use,
     and moderation of alcohol intake can reduce cancer risk.

3. **Diagnosis and Staging**
   - Early detection is crucial for improving cancer outcomes.
   - Stage-specific outcomes are critical for planning treatment.

4. **Treatment Options**
   - Treatment strategies depend on the type and stage of the cancer.
   - Options may include surgery, radiation therapy, chemotherapy,
     and targeted therapy.

5. **Supportive Care**
   - Supportive care is essential to improve the quality of life for patients
     and their families.
   - Pain management, nutritional support, and psychosocial care
     are important aspects of supportive care.

**Recommendations**

- It is recommended to incorporate genetic counseling into the care of
  individuals at increased risk for cancer.
- Antiviral therapy should be considered for the prevention of
  hepatitis B and C-related liver cancer.
- The use of dietary supplements should be discouraged in the context
  of cancer prevention.

**Evidence**

- Evidence for the effectiveness of lifestyle interventions in reducing
  cancer risk is strong.
- Evidence for the role of genetic factors in cancer predisposition is
  robust.

**Summary**

Cancer is a significant global health challenge, and strategies
are needed to address its impact on populations worldwide.

**References**

- International Agency for Research on Cancer (IARC)
- World Health Organization (WHO)
- National Cancer Institute (NCI)

**Acknowledgments**

This chapter was adapted from the WHO Cancer Atlas and
updated to reflect the most recent data available.

**Conflict of Interest**

No conflicts of interest were reported by the authors.

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Other staging systems applied alone or in combination with BCLC are translational researchers.

The shape of the NCI (Grade 2) distribution

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From cases of liver disease, it is clear that the choice of treatment is based on the stage of the disease.

Ethanol injection is recommended in cases where radiofrequency ablation is considered the standard of care for patients with BCLC 0-A tumors.

While one imaging technique is required for nodules greater than 1.5 cm in diameter, GPC3, LYVE1, and Friedenreich's antigens are used for nodules less than 1.5 cm in diameter.

Ethanol injection is recommended for the management of HCC tumors and very well-preserved liver function, as normal transaminase levels are within normal limits.

It is essential to consider the pattern of recurrence subsequent to therapy allocation.

Evidence 2A; Recommendation 1B

Evidence 1D; Recommendation 2B

Evidence 1iD; Recommendation 1A
Clinical Practice Guidelines

Vaccination against hepatitis B is recommended to all newborns and high-risk groups. The randomized, double-blinded controlled clinical trial (1) is the gold standard for the evaluation of vaccines. MELD Model for End-stage Liver Disease is the current gold standard for liver disease staging. The randomized controlled trial is the gold standard for clinical trials. The randomized, double-blinded controlled clinical trial is the gold standard for clinical trials. The randomized, double-blinded controlled clinical trial is the gold standard for clinical trials. The randomized, double-blinded controlled clinical trial is the gold standard for clinical trials.
Clinical Practice Guidelines for the Management of Hepatocellular Carcinoma

Introduction

Hepatocellular carcinoma (HCC) is the most common primary malignancy of the liver and the fifth most common cause of cancer-related death worldwide. Early detection and management of patients with HCC are critical to improve outcomes. This guideline provides recommendations for the staging, diagnosis, and treatment of HCC.

Staging Systems

Several staging systems are in use for HCC, including the Barcelona Clinic Liver Cancer (BCLC), the Cancer of the Liver Italian Cooperative Group (CLIC), and the Asian Pacific Society for Digestive Endoscopy (APSEC). Each system has its own strengths and limitations, and the choice of staging system may influence treatment decisions.

Selective intra-arterial chemotherapy or lipiodolization are not considered standard of care for patients with BCLC 0-A tumors. Evidence for these treatments is limited, and their role in the management of HCC remains controversial.

Chemoembolization is discouraged in patients with decompensated liver disease, advanced liver dysfunction, macroscopic invasion, or unresectable tumors. Evidence 2A; recommendation 2B.

Evidence 2A; recommendation 2B.

Evidence 2A; recommendation 1A.

Evidence 2A; recommendation 1B.

Evidence 2A; recommendation 2B.

Evidence 2A; recommendation 2B.

Evidence 2A; recommendation 1C.

Evidence 2A; recommendation 2B.

Evidence 2A; recommendation 1D.

Evidence 1D; recommendation 1A.

Evidence 1I; recommendation 1A.

Evidence 1I; recommendation 1A.

Evidence 1I; recommendation 1A.

Evidence 2D; recommendation 2B.

Evidence 2D; recommendation 2B.

Evidence 2D; recommendation 2B.

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Evidence 2D; recommendation 2B.
Clinical Practice Guidelines

10.9 million new cases of cancer and 6.7 million cancer-related
death (692,000 cases), and accounts for 7% of all cancers
in Japan, where the incidence of HCC is highest in the cohort of
people aged 60 to 69 years. HCC is the fifth leading cause of
death worldwide, with an estimated 782,000 deaths in 2010.

The Surveillance, Epidemiology, and End Results (SEER) program
of the National Cancer Institute has been tracking cancer incidence
and mortality rates in the United States since 1973. In 2010, the
SEER program reported that there were 1.58 million new cancer
cases diagnosed and 575,000 cancer deaths.

The American Cancer Society estimates that in 2010, there
were approximately 1.58 million new cancer cases diagnosed
and 575,000 cancer deaths in the United States. The most
common forms of cancer diagnosed in 2010 were lung, prostate,
breast, colorectal, and melanoma.

1. Introduction

The diagnosis and treatment of cancer is a complex process
involving a multidisciplinary approach. Healthcare providers
must work together to ensure that patients receive the best
possible care. This chapter provides an overview of the
clinical practice guidelines for the treatment of cancer.

2. Clinical Practice Guidelines

The Clinical Practice Guidelines (CPG) are a set of
recommendations for the management of cancer. They are
developed by a multidisciplinary team of experts and
are based on the best available evidence. The CPGs
are reviewed and updated periodically to reflect new
evidence and changes in practice.

3. Clinical Practice Guidelines for the Management of Cancer

The Clinical Practice Guidelines for the Management of Cancer
provide evidence-based recommendations for the diagnosis
and treatment of various types of cancer. These guidelines
are intended to help healthcare providers make informed
decisions about the best course of treatment for their patients.

4. Conclusion

The Clinical Practice Guidelines for the Management of Cancer
are an important resource for healthcare providers. They
provide a framework for the delivery of high-quality care
to patients with cancer. By following the guidelines, healthcare
providers can ensure that their patients receive the best
care possible.
Resection is the treatment option for patients with solitary tumors. The BCLC staging system is recommended for prognostic prediction. Additional indications for patients with multifocal tumors meeting specific criteria include tumors less than 5 cm in size. Additional staining can be considered to detect progenitor cell profiles, which are closely associated with the typical hallmark of HCC (hypervascular response in more than 90% of cases with good long-term outcomes). In cases of down-staging or when the waiting list exceeds 6 months due to good cost-effectiveness, Chemoembolization and transcatheter therapies can be considered. This therapy, including techniques such as radiofrequency ablation, cryoablation, and microwave ablation, is effective in achieving tumor control with acceptable survival benefits. The updated evidence and guidelines are consistent with the previous recommenda-tions, emphasizing the importance of interdisciplinary management and treatment decision-making processes. In adherence to the updated guidelines, treatment options are tailored to the specific characteristics of the tumor and patient, aiming to achieve optimal outcomes while ensuring patient safety and satisfaction.
Sorafenib is the standard systemic therapy for HCC. It is indicated during advanced or symptomatic disease. However, its role in the treatment of early-stage HCC is not well established. The efficacy of sorafenib in patients with early-stage disease is uncertain, and further studies are needed to determine its place in the management of these patients. It is important to note that sorafenib does not cure HCC, but it can delay disease progression and improve overall survival. The use of sorafenib is generally limited to patients who are considered candidates for systemic therapy and have a life expectancy of at least 6 months. In cases of severe side effects, sorafenib may be continued at reduced doses. In conclusion, sorafenib is a valuable treatment option for patients with HCC, but its use should be carefully considered based on individual patient characteristics and treatment goals. Further research is needed to identify better treatment strategies for HCC.
Clinical Practice Summary

- Pathological diagnosis of HCC is based on the recommendations of the typical hallmark of HCC (hypervascular pattern). While one imaging technique is required for nodules in the arterial phase with washout in the portal venous or delayed phase, two techniques are recommended for nodules beyond 1 cm in diameter.

- Neo-adjuvant treatment can be considered for loco-regional therapies. While one embolization technique is required for nodules in the arterial phase with washout in the portal venous or delayed phase, two techniques are recommended for nodules beyond 1 cm in diameter (evidence 3A; recommendation 2C).

- Liver transplantation is considered to be the treatment of choice for patients with BCLC stage C disease (evidence 2A; recommendation 1A).

- Chemoembolization is recommended for patients with BCLC stage B disease (evidence 1iD; recommendation 1A). Bland embolization is not recommended (evidence 1D; recommendation 2B).

- The use of drug-eluting beads has shown similar response rates to traditional embolization techniques, and thus this indication requires prospective clinical trials to determine the optimal treatment approach (evidence 3B; recommendation 2A).


Resection
Treatment

• Staging systems in HCC should predict outcome and guide treatment decisions. Additional classification systems (e.g., BCLC) provide more detailed stratification and improve decision-making.

Clinical Practice Guidelines

1. Resectable HCC

2. Radiofrequency ablation

3. Transarterial chemoembolization

4. Local ablative techniques (e.g., cryoablation, microwave ablation)

5. Systemic therapies

6. Liver transplantation

7. Best supportive care

Hazard ratio

Hazard ratio of HCC based on gene signatures or biomarkers

not recommended in clinical practice

Clinical Practice Summary

• Local ablation with radiofrequency or percutaneous ethanol injection is preferred for small HCC lesions (<3 cm).

• Chemoembolization is discouraged in patients with decompensated liver function.

• The use of drug-eluting beads has shown similar response rates compared to conventional embolization.

• Radiotherapy is not recommended in the absence of a curative option.

• Sorafenib is the only licensed systemic therapy for advanced HCC in many countries.

• Other systemic therapies, such as axitinib and lenvatinib, are under investigation.

• Transarterial chemoembolization is an effective treatment option for patients who are not surgical candidates.

• Palliative care and best supportive care remain important components of management.

• Regular monitoring and treatment adjustments are necessary to optimize patient outcomes.

References


20. Llovet et al. (2025). J Hepatol 78(7): 925-945.
Sorafenib is the standard systemic therapy for HCC. It is indicated for patients with advanced disease with or without portal vein thrombosis. Best supportive care or the use of sorafenib as a palliative treatment is recommended for patients with advanced HCC who are not candidates for systemic therapy.

Clinical Practice Guidelines

The evidence for the use of sorafenib in HCC is based on a large randomized trial that showed a significant improvement in overall survival compared to placebo. Meta-analyses of randomized studies have confirmed these results. However, the evidence is not strong enough to recommend sorafenib as a first-line treatment for all patients with advanced HCC.

The guidelines also recommend that patients with advanced HCC be evaluated for the possibility of resection or liver transplantation, as these treatments can provide prolonged survival in selected patients.

In conclusion, the use of sorafenib in HCC is supported by strong evidence, but its role in the treatment of this disease should be considered in light of the individual patient's clinical status and the availability of alternative treatment options.
1. The BCLC staging system is recommended for prognostic prediction.
2. Staging systems in HCC should be used to predict outcomes.
3. Molecular markers are evolving.
4. Peri-operative mortality of liver resection in cirrhotic patients is
5. Anatomical resections are recommended.
6. Internal radiation with TACE is not recommended.
7. Local ablation with radiofrequency or percutaneous ethanol injection is effective.
8. Whether they can be considered as competitive alternatives to systemic therapy is uncertain.
10. Resection is the first-line treatment for small HCC.
11. The Milan criteria apply to patients with single tumors less than 5 cm.
12. The Milan criteria apply to patients with solitary tumors less than 3 cm.
13. Resection is associated with less systemic adverse effects.
14. Whether they can be considered as competitive alternatives to systemic therapy is uncertain.
15. The Milan criteria apply to patients with solitary tumors less than 3 cm.
16. The Milan criteria apply to patients with solitary tumors less than 5 cm.
17. Resection is associated with less systemic adverse effects.
18. Whether they can be considered as competitive alternatives to systemic therapy is uncertain.
19. The Milan criteria apply to patients with solitary tumors less than 3 cm.
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26. Resection is associated with less systemic adverse effects.
27. Whether they can be considered as competitive alternatives to systemic therapy is uncertain.
28. The Milan criteria apply to patients with solitary tumors less than 3 cm.
29. Resection is associated with less systemic adverse effects.
30. Whether they can be considered as competitive alternatives to systemic therapy is uncertain.
بالطب البصري

الجدول 5: تقييم الاستجابة: مقارنة بين معيار RECIST و mRECIST

<table>
<thead>
<tr>
<th>المعيار</th>
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<th>mRECIST</th>
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<tr>
<td>الأفادـة</td>
<td>نوع الاستجابة</td>
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| RECIST | معيار كل الألفاظ الدافع 
(اختفاء أي تأثير شرقي داخل ووري في كل الألفاظ عن التصور) |
| mRECIST | تستفيد المعالجة |
| RECIST | انخفاض %30 على الألفاظ في مجموع أكثر الألفاظ الدافع 
(انخفاض في البداية في الوربي) 
و ذلك عند مقارنة مع مجموع أكثر الألفاظ الدافع الأساسي |
| mRECIST | تستفيد المعالجة |
| RECIST | أي استجابة لا يمكن تصنيفها ضمن التصنيفات السابقة |
| mRECIST | تستفيد المعالجة |
| RECIST | زيادة %20 على الألفاظ في مجموع أكثر الألفاظ الدافع 
(زيادة في البداية في الوربي) 
و ذلك بالمقارنة مع أصغر مجموع أكثر الألفاظ |
| mRECIST | تستفيد المعالجة |
| RECIST | مجمل %150 في البداية مع الصفر |}

الآفات غير الدافع

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<th>المعيار</th>
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<td>اخفاء أي تأثير شرقي داخل ووري في كل الألفاظ غير الدافع عند</td>
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<tr>
<td>mRECIST</td>
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</table>
| RECIST | بناء واحداً أو أكثر من الآفات غير الدافع 
(لم يتم اتخاذ تصوير بديل) |
| mRECIST | تستفيد المعالجة |
| RECIST | ظهور آفة جديدة أو أكثر / أو تطور وجود واحد أو أكثر من الآفات غير الدافع |
| mRECIST | تستفيد المعالجة |

تهاجم: mRECIST

- mRECIST: معيار تقييم الاستجابة في الأورام السرطانية.
- RECIST: معيار تقييم الاستجابة في الأورام السلبية.

- في mRECIST: PD = مرض مستمر.
- في RECIST: PD = مرض مستمر.

- "100% Lencioni and Llovet, 2013" 
- "149% Llovet, 2013" 
- "مقبس من Llovet, 2013"
Treatment allocation is based on the BCLC allocation system. Diagnosis of HCC is based on non-invasive criteria or pathology.

The report shows an enhanced appreciation of the complex relationship between the liver and other body systems, emphasizing the importance of multidisciplinary collaboration. It highlights the role of advanced imaging techniques and liver biopsy in the diagnosis of HCC.

Down-staging policies for HCCs exceeding conventional criteria cannot be recommended and should be explored in the context of clinical trials. Bland embolization is not recommended.

The report also discusses the role of chemoembolization, chemotherapy, and targeted therapies in the management of HCC, emphasizing the need for more randomized controlled trials to confirm the efficacy of these treatments.

In summary, the report provides a comprehensive overview of the current state of HCC management, highlighting areas for future research and the need for multidisciplinary approaches to improve patient outcomes.

References:
The inevitable changes in the state of scientific information and the time of publication, on effective and appropriate care, as well as meeting the primary end-point survival.

http://www.businesswire.com/portal/site/home/email/alert (Jan 2012)


2. The inevitable changes in the state of scientific information and the time of publication, on effective and appropriate care, as well as meeting the primary end-point survival.

http://www.businesswire.com/portal/site/home/email/alert (Jan 2012)

The inevitable changes in the state of scientific information and the time of publication, on effective and appropriate care, as well as meeting the primary end-point survival.

http://www.businesswire.com/portal/site/home/email/alert (Jan 2012)
Diagnosis

- Pathological diagnosis of HCC is based on the recommendations of the European Association for the Study of the Liver (EASL) Clinical Practice Guidelines.

- Tumor recurrence represents the major complication of resection and is expected to be 2-3%.


Epidemiology, risk factors, and prevention

The burden of cancer is increasing worldwide. Each year there are...
Diagnosis of HCC is based on non-invasive criteria or pathology. Peri-operative mortality of liver resection in cirrhotic patients is a major concern. Tumor recurrence represents the major complication of resection and is a significant clinical challenge.

Anatomical resections are recommended (evidence 2A; recommendation 1B) for patients with single tumors and very well-preserved liver function, as normal liver function is essential for long-term survival. This staging system can be applied to most HCC patients, as it provides a standardized framework for clinical practice and research.

The Chinese University Prognostic Index for hepatocellular carcinoma and the Chinese University Prognostic Index for hepatocellular carcinoma and the Chinese University Prognostic Index for hepatocellular carcinoma (CUP) are widely used for risk stratification and treatment decision making. The CUP index is calculated using a combination of factors such as age, bilirubin level, Child-Pugh score, and tumor number.

Liver transplantation is considered to be the treatment option of choice for patients with single tumors and normal liver function. Selective intra-arterial chemotherapy or lipiodolization are not recommended as first-line therapy. Chemoembolization is discouraged in patients with decompensated liver function. Other ablative therapies, such as microwave or cryoablation, are still under investigation, and there is no evidence to support this therapeutic approach.

Liver transplantation is considered the standard of care for patients with BCLC 0-A tumors. Assessment of downstaging should follow the RECIST criteria. Other options include transcatheter arterial chemoembolization and targeted therapies. Clinical Practice Guidelines

Clinical Practice Summary

More than 100,000 patients with hepatocellular carcinoma are diagnosed each year worldwide. The prognosis of patients with advanced hepatocellular carcinoma (HCC) randomized in the phase III SHARP trial. Liver transplantation is the first-line treatment for patients with single tumors and normal liver function. Selective intra-arterial chemotherapy or lipiodolization are not recommended as first-line therapy. Chemoembolization is discouraged in patients with decompensated liver function. Other ablative therapies, such as microwave or cryoablation, are still under investigation, and there is no evidence to support this therapeutic approach.

Liver transplantation is considered the standard of care for patients with BCLC 0-A tumors. Assessment of downstaging should follow the RECIST criteria. Other options include transcatheter arterial chemoembolization and targeted therapies. Clinical Practice Guidelines
Clinical Practice Guidelines

The burden of cancer is increasing worldwide. Each year there are 10.9 million new cases of cancer and 6.7 million cancer-related deaths. Prevention of hepatocellular carcinoma (HCC) is a major priority. A 2011 clinical practice summary was prepared by the Global Health Professional Working Group of the World Health Organization (WHO) [1]. The summary is intended to provide guidance on the best management of HCC at all stages of disease. The recommendations are intended for use by patients, their caregivers, and healthcare providers. The summary is based on a systematic review of the evidence and is intended to be generalizable to low-resource settings. The recommendations are not intended to replace local guidelines or existing national guidelines. The full document is available at [2].

References:


The Clinical Practice Guidelines are intended to provide guidance on the best management of HCC at all stages of disease. The recommendations are intended for use by patients, their caregivers, and healthcare providers. The summary is based on a systematic review of the evidence and is intended to be generalizable to low-resource settings. The recommendations are not intended to replace local guidelines or existing national guidelines. The full document is available at [3].

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References:

• Treatment allocation is based on the BCLC allocation system
• The BCLC staging system is recommended for prognostic prediction

Staging systems

Diagnosis
• Additional indications for patients with multifocal tumors meeting

Tumor recurrence represents the major complication of resection and
• Other staging systems applied alone or in combination with BCLC are


lertmann g, preguenuezo m, gurusamy k, meyer i, igori l, serrugsachs ak. Clinical outcomes of radiofrequency ablation, percutaneous alcohol and acetic acid injection for hepatocellular carcinoma: a meta-analysis. J Hepatol 2010;52:380–388.


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komorizono y, oketani m, sako k, yamasaki n, shiibata t, maeda m, et al. Risk factors for local recurrence of small hepatocellular carcinoma tumors after a single session, single application of percutaneous radiofrequency ablation. Cancer 2003;97:1253–1262.


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A randomized controlled trial comparing the survival of patients with advanced hepatocellular carcinoma: a Swiss Group for Clinical Cancer Research (SAKK) and Swiss Association for the Study of the Liver (SASL) multicenter phase II trial (SAKK 77/06). Oncologist 2010;15:285–292.

Phase III trial of sunitinib (Su) versus sorafenib (So) in advanced hepatocellular carcinoma (HCC). J Clin Oncol 2011;29. Abstract 4000.


908–943

Comparison of tumor response by response evaluation criteria in solid tumors (RECIST) and modified RECIST in patients treated with sorafenib for unresectable hepatocellular carcinoma treated with nolatrexed or doxorubicin. J Clin Oncol 2011;29:4000.


The incidence of HCC increases progressively with advancing age in all populations, reaching a peak at 70 years [5]. In Chinese society, the mean age at the time of diagnosis is appreciably younger. This is in sharp contrast to Western society, where the mean age at the time of diagnosis is approximately 60 years. In Southern Europe where the incidence in men (10.5 age-standardized incidence per 100,000 person-years) is higher than in women (7.1), the male to female ratio estimated to be 2.4 [4]. HCC represents more than 90% of primary liver cancers and is the sixth most common cause of cancer death worldwide. These end-points may be subjected to investigator interpretation. More rigorous end-points need to be defined.