15η Πανελλήνια Εκπαιδευτική Συνάντηση ΕΛΙΓΑΣΤ
"Εξελίξεις στη Γαστρεντερολογία και Ηπατολογία"

Νέες ευρωπαϊκές κατευθυντήριες συστάσεις για τη διαιτητική διαχείριση της κίρρωσης

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ESPEN guideline on clinical nutrition in liver disease

Plauth M. et al.

Clinical Nutrition, 2019

38(2): 485-521

EASL Clinical Practice Guidelines on nutrition in chronic liver disease

European Association for the Study of the Liver

Journal of Hepatology, 2019

70(1): 172-193

Αναγνώριση ανάγκης παροχής διατροφικής φροντίδας σε ασθενείς με κίρρωση

Ανίχνευση διατροφικού κινδύνου

Διατροφική αξιολόγηση

Διατροφική παρέμβαση

Κακή θρέψη στην κίρρωση

ESPEN

Statement 1

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In LC, a stage dependent progressive impairment of carbohydrate, protein and lipid metabolism characterized by hepatic glycogen depletion, impaired non-oxidative glucose metabolism and reduced albumin synthetic rate should be anticipated. (Strong consensus)

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Recommendation 1

Due to considerable inter-individual variability, REE should be measured using indirect calorimetry, if available. (Grade GPP - Strong consensus)

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Ανίχνευση διατροφικού κινδύνου

ESPEN

Recommendation 3

Liver disease patients should be screened for malnutrition using a validated tool. (Grade B - Strong consensus)

EASL

Perform a rapid nutritional screen in all patients with cirrhosis and complete a detailed assessment in those at risk of malnutrition, to confirm the presence and severity of malnutrition. (Grade II-2, B1)

ESPEN

Recommendation 3

Liver disease patients should be screened for malnutrition using a validated tool. (Grade B - Strong consensus)

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Royal Free Hospital Nutritional Prioritizing Tool (RFH-NPT)

EASL

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ESPEN

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Assume risk for malnutrition to be high if BMI<18.5 kg/m^2 or Child-Pugh C. Utilise nutritional screening tools to assess the risk of malnutrition in all other instances. (Grade II-2, B1)

Διατροφική αξιολόγηση

ESPEN

•In cirrhotics without ascites, the *actual body weight* should be used for the calculation of the basal metabolic rate.
•In patients with ascites the *ideal weight according to body height* should be used.

EASL

ESPEN

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EASL

- Post-paracentesis BW
- or weight recorded before fluid retention if available,
- or by subtracting a percentage of weight based upon the severity of ascites (*mild 5%; moderate 10%; severe 15%*), with an *additional 5%* subtracted if bilateral pedal oedema is present.

ESPEN

Recommendation 4

In cirrhosis, the presence or absence of sarcopenia should be assessed since sarcopenia is a strong predictor of mortality and morbidity. (Grade B - Strong consensus)

Recommendation 5

Radiologic methods (DXA or when CT/MRT images are available for other reasons) should be used to diagnose sarcopenia. (Grade B - Strong consensus)

Statement 10

Phase angle (measured by bioelectrical impedance analysis) or handgrip strength allow assessment of mortality risk. (Strong consensus)

EASL

ESPEN

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Phase angle (measured by bioelectrical impedance analysis) or handgrip strength allow assessment of mortality risk. (Strong consensus)

EASL

Include an assessment of sarcopenia within the nutritional assessment. (Grade II-2, B1)

Whenever a CT scan has been performed, assess muscle mass on images by this method. Anthropometry, DEXA or BIA are possible alternatives, which also allow for serial measurements. (Grade II-2, B1)

Assess muscle function, in the clinical setting, with the most appropriate tool, such as handgrip strength and/or the short physical performance battery. (Grade II-2, B1)

ESPEN

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EASL

Assess dietary intake by trained personnel (ideally a dietician with knowledge of managing patients with liver disease) working as part of a team with the hepatologist.

Assessment should include:
•quality and quantity of food and supplements,
•fluids,
•sodium in diet,
•number and timing of meals during the day and
•barriers to eating.
(Grade II-2, B1)

Διατροφική παρέμβαση

ESPEN

Recommendation 46

Specific nutritional counselling should be implemented in cirrhotic patients using a multidisciplinary team to improve patients' long-term outcome/survival. (Grade GPP - Strong consensus)

Recommendation 47

Multidisciplinary nutrition care should include monitoring of nutritional status and provide guidance for achieving nutritional goals. (Grade GPP - Strong consensus)

EASL

Nutritional counselling should be performed in cirrhotic patients with malnutrition, when possible by a multidisciplinary team, helping patients to achieve adequate caloric and protein intake. (Grade II-2, C2)

ESPEN

Recommendation 50

Cirrhotic patients in conditions of increased energy expenditure (i.e. acute complications, refractory ascites) or malnutrition, should ingest an increased amount of energy. (Grade GPP - Strong consensus)

Recommendation 57

Oral diet of cirrhotic patients with malnutrition and muscle depletion should provide 30-35 kcal/kg/d. (Grade B - Strong consensus)

EASL

- **Διατροφική παρέμβαση** – Συνιστώμενη ενεργειακή πρόσληψη

ESPEN

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Oral diet of cirrhotic patients with malnutrition and muscle depletion should provide 30-35 kcal/kg/d. (Grade B - Strong consensus)

EASL

Optimal daily energy intake should not be lower than the recommended 35 kcal/kg actual BW/d (in nonobese individuals). (Grade II-2, B1)

- **Διατροφική παρέμβαση** – Συνιστώμενη ενεργειακή πρόσληψη

ESPEN

Recommendation 52
Non-malnourished patients with compensated cirrhosis should ingest 1.2 g/kg/d protein. (Grade B - Strong consensus)

Recommendation 53
To replenish malnourished and/or sarcopenic cirrhotic patients the amount of 1.5 g/kg/d protein should be ingested. (Grade B - Strong consensus)

EASL

- **Διατροφική παρέμβαση** – Συνιστώμενη πρωτεϊνική πρόσληψη

ESPEN

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EASL

Optimal daily protein intake should not be lower than the recommended 1.2–1.5 g/kg actual BW/d. (Grade II-2, B1)

ESPEN

Recommendation 51

In cirrhotic patients, an increased energy intake is not recommended in overweight or obese patients. (Grade GPP - Strong consensus)

Recommendation 56

In obese patients with cirrhosis lifestyle intervention aiming for beneficial effects of weight reduction, which include reduced portal hypertension, should be implemented. (Grade B - Strong consensus)

EASL

- **Διατροφική παρέμβαση** – Συνιστώμενη διαιτητική πρόσληψη σε αυξημένο βάρος

ESPEN

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EASL

A tailored, moderately hypocaloric (-500–800 kcal/d) diet, including adequate protein intake (>1.5 g proteins/kg ideal BW/d) can be adopted to achieve weight loss without compromising protein stores in obese cirrhotic patients. (Grade II-1, C2)

Implement a nutritional and lifestyle programme to achieve progressive weight loss (>5–10%) in obese cirrhotic patients (BMI >30 kg/m^2 corrected for water retention). (Grade II-2, C1)

- **Διατροφική παρέμβαση** – Συνιστώμενη διαιτητική πρόσληψη σε αυξημένο βάρος

ESPEN

Recommendation 58

Periods of starvation should be kept short by consuming three to five meals a day and a late evening snack should be recommended to improve total body protein status. (Grade B - Strong consensus)

EASL

Include late evening oral nutritional supplementation and breakfast in dietary regimen of malnourished decompensated cirrhotic patients. (Grade II-1, B1)

EASL

• Most of what you have heard/read on the relationship between food and the liver has limited scientific evidence to support it. Generally, healthy eating of a variety of foods is advisable for all patients.

• Virtually no food other than alcohol actually damages the liver and/or is genuinely contraindicated in patients with chronic liver disease.

• In most patients with chronic liver disease, eating an adequate number of calories and protein is much more important than avoiding specific types of food, so it is important that you have a good, varied diet that you enjoy.

• You should try to split your food intake into 3 main meals (breakfast, lunch and dinner) and 3 snacks (mid-morning, mid-afternoon, late evening). The late-evening snack is the most important, as it covers the long interval between dinner and breakfast.

• You should try to eat as many fruit and vegetables as you can. If you feel that this makes you feel bloated, and that it makes you eat less, please report to your doctor or dietician.

• You should try not to add too much salt to your food. It may take some time to adjust, but it usually gets easier with time. However, if you keep feeling that this makes your food unpleasant to eat, and that it makes you eat less, please report to your doctor or dietician.

• A limited proportion of patents with liver disease have a complication called hepatic encephalopathy, which may make them tolerate animal protein (meat) less well than vegetable protein (beans, peas etc.) and dairy proteins. Before you make any changes to your protein intake, you should always ask your doctor or dietician. Please do not reduce your total protein intake as it is not advisable in cirrhosis.

• Some patients with liver disease have other diseases, for example diabetes or overweight/obesity, which require dietary adjustments. Please remember to tell your doctor about all your illnesses and about any dietary advice you have already received from other doctors, nurses or dieticians.

- Αδικαιολόγητη αποφυγή τροφίμων
- Ποικιλία τροφίμων
- 3 κύρια γεύματα- 3 σνακ (έμφαση στο προ ύπνου σνακ)
- Φρούτα- λαχανικά
- Περιορισμός προστιθέμενου αλατιού στο φαγητό

Διατροφική παρέμβαση

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Patients with cirrhosis, whenever possible, can be encouraged to avoid hypomobility and to progressively increase physical activity to prevent and/or ameliorate sarcopenia.
(Grade II-1, C2)

- Αδικαιολόγητη αποφυγή τροφίμων
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- **Διατροφική παρέμβαση**

ESPEN

Recommendation 59

In cirrhotic patients who are protein “intolerant”, vegetable proteins or BCAA (0.25g/kg/d) should be used by oral route to facilitate adequate protein intake. (Grade B - Consensus)

Recommendation 60

Long-term oral BCAA supplements (0.25 g/kg/d) should be prescribed in patients with advanced cirrhosis in order to improve event-free survival or quality of life. (Grade B - Consensus)

EASL

ESPEN

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Long-term oral BCAA supplements (0.25 g/kg/d) should be prescribed in patients with advanced cirrhosis in order to improve event-free survival or quality of life. (Grade B - Consensus)

EASL

BCAA supplements and leucine enriched amino acid supplements should be considered in decompensated cirrhotic patients when adequate nitrogen intake is not achieved by oral diet. (Grade II-1, C1)

ESPEN

Recommendation 55

In cirrhotic patients, micronutrients should be administered to treat confirmed or clinically suspected deficiency.
(Grade GPP - Strong consensus)

EASL

ESPEN

Recommendation 55
In cirrhotic patients, micronutrients should be administered to treat confirmed or clinically suspected deficiency. (Grade GPP - Strong consensus)

EASL

In cirrhotic patients, administer micronutrients and vitamins to treat confirmed or clinically suspected deficiency. (Grade II-1, C1)

Assess vitamin D levels in cirrhotic patients, as deficiency is highly prevalent and may adversely affect clinical outcomes. (Grade II-3, B1)

Supplement vitamin D orally in cirrhotic patients with vitamin D levels <20 ng/ml, to reach serum vitamin D (25(OH)D) >30 ng/ml. (Grade II-1, B1)

ESPEN

Recommendation 61

When prescribing a low sodium (unpalatable) diet the increased risk of even lower food consumption should be balanced against its moderate advantage in the treatment of ascites. Care should be taken to avoid compromising the palatability of the diet after sodium reduction. (Grade GPP – Consensus)

EASL

In cirrhotic patients with ascites under sodium restriction (recommended intake of sodium 80mmol/day =2g of sodium corresponding to 5g of salt added daily to the diet according to EASL guidelines) take care to improve diet palatability as this regime may cause a reduction in caloric intake. (Grade II-2, B1)

ESPEN

Recommendation 54
Protein intake should not be restricted in cirrhotic patients with HE as it increases protein catabolism. (Grade B - Strong consensus)

EASL

ESPEN

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Protein intake should not be restricted in cirrhotic patients with HE as it increases protein catabolism. (Grade B - Strong consensus)

EASL

- Nutritional status and the presence of sarcopenia should be evaluated in patients with HE. (Grade II-3, B1)
- Avoid protein restriction in patients with HE. (Grade II-1, A1)
- Optimal daily protein and energy intake should not be lower than the general recommendations for cirrhotic patients. (Grade II-1, A1)
- Encourage the consumption of vegetables and dairy protein. (Grade II-3, B1)
- BCAA supplementation should be considered to improve neuropsychiatric performance and to reach the recommended nitrogen intake. (Grade I-1, A1)
- Oral dietary intake is preferred in patients who can tolerate it. In patients with grade III-IV encephalopathy, who are unable to eat, provide nutrition by nasogastric tube (in patients with protected airways) or parenterally. (Grade II-1, B1)

ESPEN

EASL

In patients with malnutrition and cirrhosis who are unable to achieve adequate dietary intake with the oral diet (even with oral supplements), a period of enteral nutrition is recommended. (Grade II-1, B1)

ESPEN

Recommendation 62
In cirrhotic patients, who cannot be fed orally or who do not reach the nutritional target through the oral diet, EN should be performed. (Grade B - Strong consensus)

Recommendation 63
Esophageal varices are no absolute contraindication for positioning a nasogastric tube. (Grade 0 - Strong consensus)

Recommendation 64
PEG placement is associated with a higher risk of complications, due to ascites or varices, and thus, can only be used in exceptional cases. (Grade 0 - Strong consensus)

Recommendation 65
PN should be used in cirrhotic patients in whom oral and/or EN are ineffective or not feasible. (Grade B - Strong consensus)

EASL

In patients with malnutrition and cirrhosis who are unable to achieve adequate dietary intake with the oral diet (even with oral supplements), a period of enteral nutrition is recommended. (Grade II-1, B1)

ESPEN

Recommendation 66
LC patients scheduled for elective surgery or listed for transplantation should be screened and assessed for malnutrition timely in order to treat malnutrition prior to surgery and thereby improve body protein status. (Grade B - Strong consensus)

EASL

Screen for malnutrition and sarcopenia in cirrhotic patients listed for transplantation or scheduled for elective surgery. Sarcopenia can be treated prior to elective surgery, as this will enable improvement in body protein status and clinical outcomes. (Grade III, B2)

ESPEN

Recommendation 66

LC patients scheduled for elective surgery or listed for transplantation should be screened and assessed for malnutrition timely in order to treat malnutrition prior to surgery and thereby improve body protein status. (Grade B - Strong consensus)

Recommendation 67

In the immediate preoperative period LC patients should be managed according to the ERAS approach in order to prevent unnecessary starvation. (Grade GPP - Strong consensus)

EASL

Screen for malnutrition and sarcopenia in cirrhotic patients listed for transplantation or scheduled for elective surgery. Sarcopenia can be treated prior to elective surgery, as this will enable improvement in body protein status and clinical outcomes. (Grade III, B2)

ERAS protocols: '...among other measures, patients are given carbohydrate containing clear liquid until two hours preoperatively, early feeding and mobilization.'

ESPEN

Recommendation 69
Preoperatively, a total energy intake of 30-35 kcal/kg/d and a protein intake of 1.2-1.5 g/kg/d should be aimed for. These ranges cover recommended intakes depending on treatment goals, i.e. maintenance or improvement of nutritional status. (Grade GPP - Strong consensus)

EASL

Preoperatively, if the treatment goal is maintenance of nutritional status, plan a total energy intake of 30 kcal/kg BW/d and a protein intake of 1.2 g/kg BW/d.

If improvement of nutritional status is the goal, plan a total energy intake of 35 kcal/kg BW/d and a protein intake of 1.5 g/kg BW/d. (Grade II-3, B1)

ESPEN

Recommendation 70

Obese patients can be given EN and/or PN with a target energy intake of 25 kcal/kg/IBW/d and an increased target protein intake of 2.0-2.5 g/kg/IBW/d. (Grade GPP - Strong consensus)

EASL

Screen for sarcopenic obesity, with body composition analysis, in obese cirrhotic patients being considered for surgery, in order to identify those at higher risk of morbidity and mortality. (Grade III, C2)

ESPEN

Recommendation 72

In adults, for preoperative nutrition standard nutrition regimens shall be used, since specialized regimens (e. g. BCAA enriched, immune-enhancing diets) were not superior to standard regimens regarding morbidity or mortality. (Grade A - Strong consensus)

EASL

For preoperative nutrition, utilise standard nutrition regimens, since specialised regimens (e.g. BCAA-enriched, immune-enhancing diets) have not been shown to improve morbidity or mortality in intervention trials.
(Grade II-1, B1)

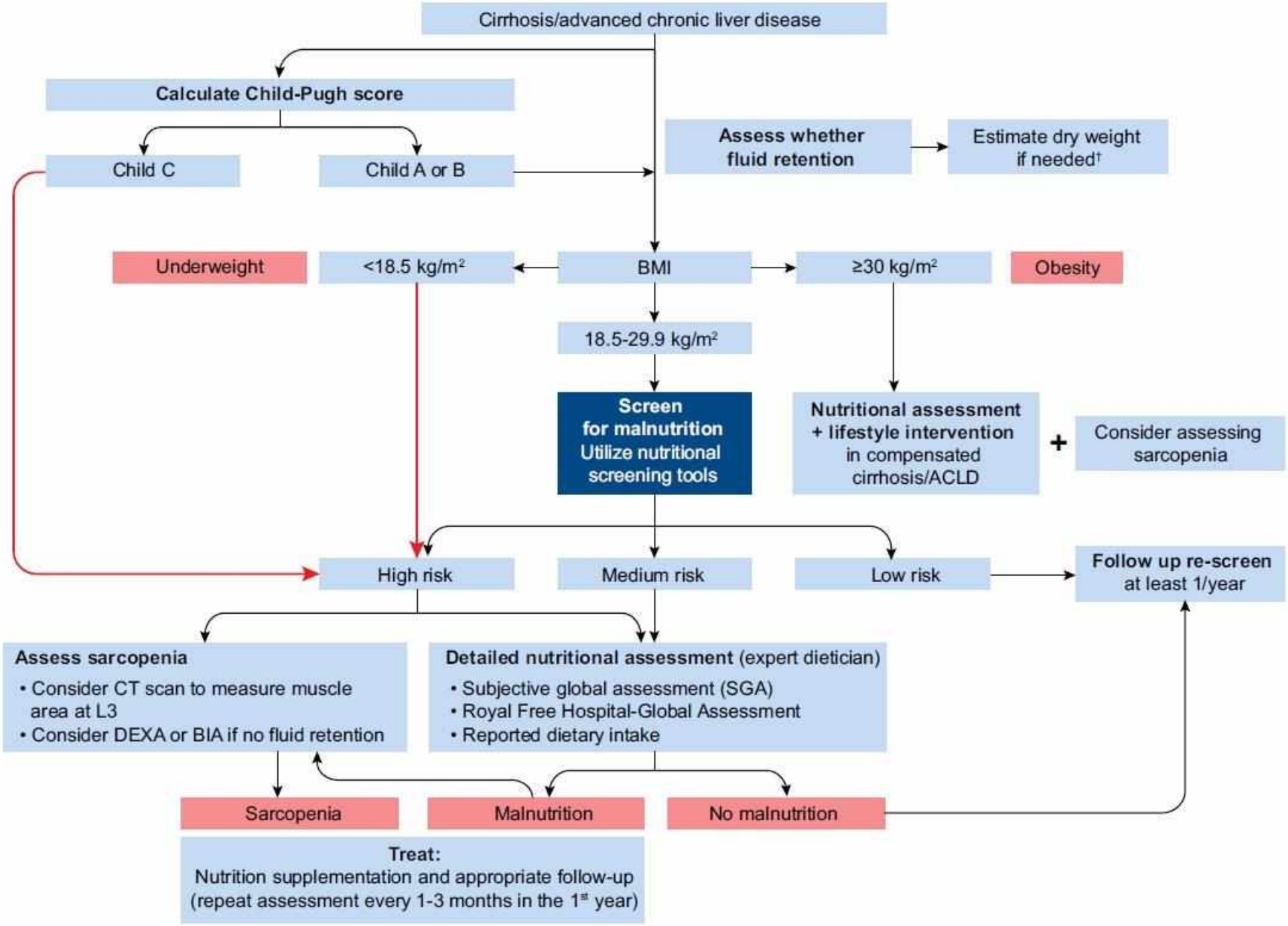
EASL

- **Διατροφική παρέμβαση** – Ασθενείς με κίρρωση σε κρίσιμη κατάσταση

EASL

- Consider nutritional status and presence of sarcopenia in all critically ill cirrhotic patients. (Grade II-3, C1)
- Supplement dietary intake by enteral nutrition in critically ill cirrhotic patients who are unable to achieve adequate dietary intake by mouth. If oral diet or enteral nutrition are not tolerated or contraindicated parenteral nutrition should be provided. (Grade III, A1)
- Naso-gastroenteric tubes are not contraindicated in patients with non-bleeding oesophageal varices. (Grade II-2, A1)
- Avoid PEG insertion in cirrhotic patients. (Grade III, B2)
- Daily energy intake ≥35–40 kcal/kg BW/d or 1.3 times measured REE. (Grade II-2, B1)
- Daily protein intake ≥1.2–1.3 g/kg BW/d. (Grade II-2, B1)
- Standard nutrition regimens can be utilised in critically ill cirrhotic patients. (Grade II-1, B2)
- In critically ill cirrhotic patients with HE, BCAA-enriched solutions should be used to facilitate resolution. (Grade I, A1)

Διατροφική παρέμβαση – Ασθενείς με κίρρωση σε κρίσιμη κατάσταση


Cirrhosis/advanced chronic liver disease
Calculate Child-Pugh score
Child C
Child A or B
Assess whether fluid retention
Estimate dry weight if needed†
Underweight
<18.5 kg/m²
BMI
≥30 kg/m²
Obesity
18.5-29.9 kg/m²
Screen for malnutrition Utilize nutritional screening tools
Nutritional assessment + lifestyle intervention in compensated cirrhosis/ACLD
+
Consider assessing sarcopenia
High risk
Medium risk
Low risk
Follow up re-screen at least 1/year
Assess sarcopenia
• Consider CT scan to measure muscle area at L3
• Consider DEXA or BIA if no fluid retention
Detailed nutritional assessment (expert dietician)
• Subjective global assessment (SGA)
• Royal Free Hospital-Global Assessment
• Reported dietary intake
Sarcopenia
Malnutrition
No malnutrition
Treat:
Nutrition supplementation and appropriate follow-up
(repeat assessment every 1-3 months in the 1st year)

Ευχαριστώ πολύ!