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January 22nd, 2024
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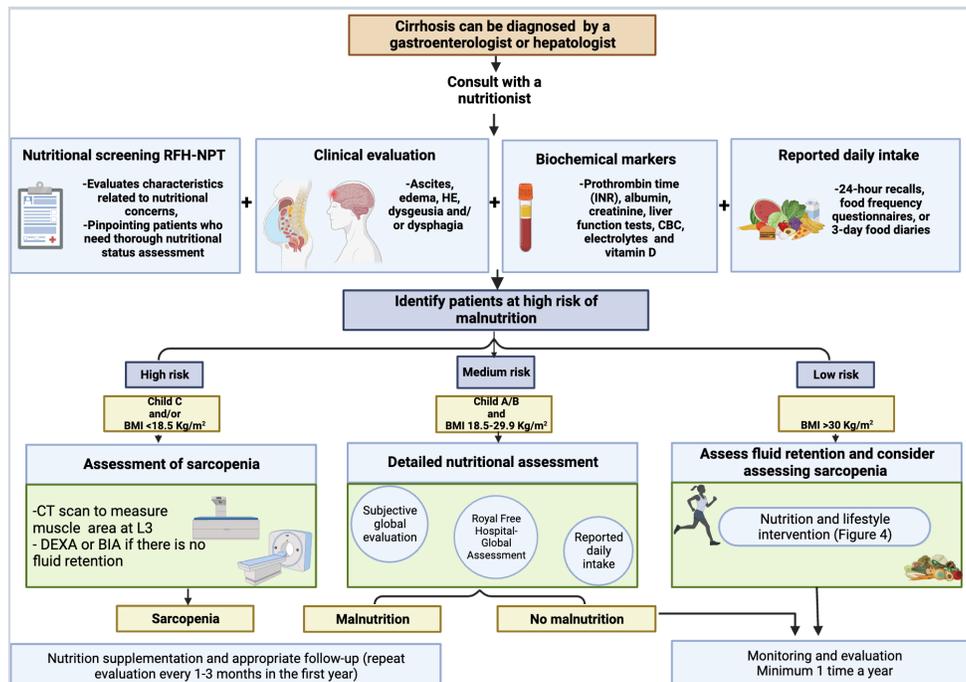
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Journal name: World Journal of Gastroenterology

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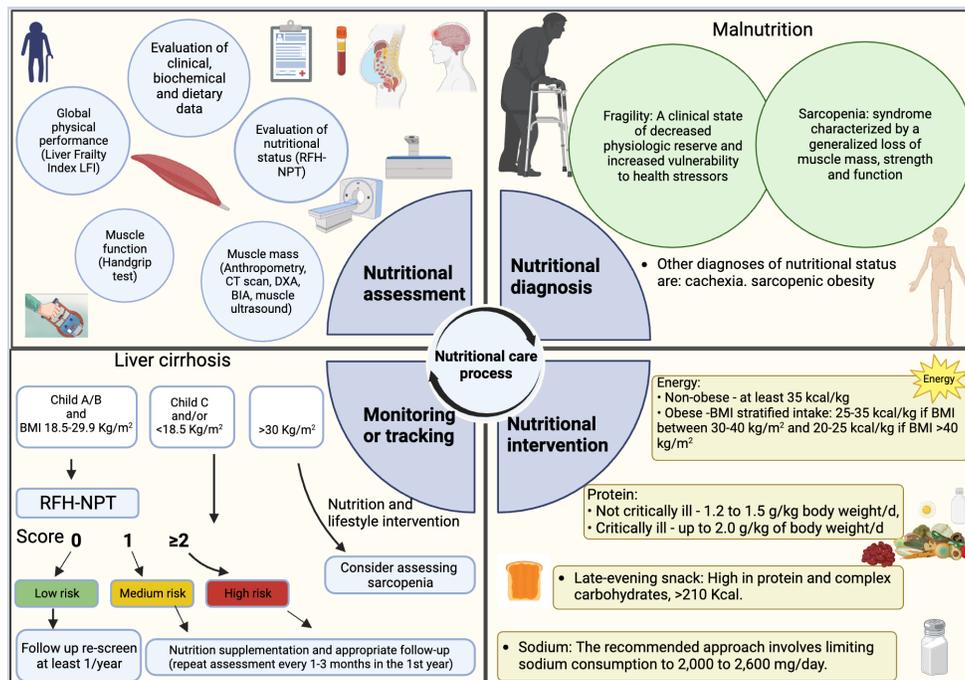
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Nutritional intervention		
Nutritional intervention must be individualized, addressing not only the primary liver disease but also any concurrent health issues		
Energy -For patients without malnutrition, an appropriate range is 30 to 35 kcal/kg/day, while malnourished individuals may require 35 to 40 kcal/kg/day. In instances of obesity and cirrhosis, an energy deficit of 500 to 800 kcal/day has been linked to weight loss. 	Protein -For mild malnutrition, the suggestion is 1 to 1.2 g/kg/day, 1.3 to 1.4 g/kg/day for moderate malnutrition, and 1.5 g/kg/day for severe malnutrition. To enhance tolerance, it is recommended that 60% to 70% of the protein comes from plant sources. 	Carbohydrates y lipids -In terms of carbohydrate recommendations, it is advised that they make up 45% to 65% of daily caloric intake. The remaining calories are suggested to be supplied by lipids. 
Micronutrients -Sodium: The recommended approach involves limiting sodium consumption to 2,000 to 2,600 mg/day. Zinc: Deficiency has been linked to the development of HE due to its role in ammonia detoxification within the urea cycle. Vitamin D3: In cases of deficiency, supplementation is necessary to attain levels exceeding 30 ng/mL. 	BCAAs -While a unanimous agreement on dosage does not yet exist, tested doses for branched-chain amino acids typically range from 0.15 to 0.25 grams per kilogram of body weight, which corresponds to 8 to 20 grams per day. 	Late-evening snack -Strategy to counteract periods of fasting. This approach not only improves nutritional metabolism but also improves glucose tolerance and nutritional status. 
Fiber -Due to its positive effects on microbiota and gastrointestinal motility, a daily fiber intake of 25 to 45 g is recommended. 	Fluids -Avoiding general water restriction for all cirrhosis patients is crucial. Fluid intake should only be restricted to 800 to 1,000 mL/day in cases of severe hyponatremia, where sodium levels are below 125 mmol/L. 	Exercise -Aerobic and resistance training lasting 30 to 60 minutes per session is recommended, at least three times per week. For frail people with sarcopenia, it is advisable to prioritize balance and flexibility training. 

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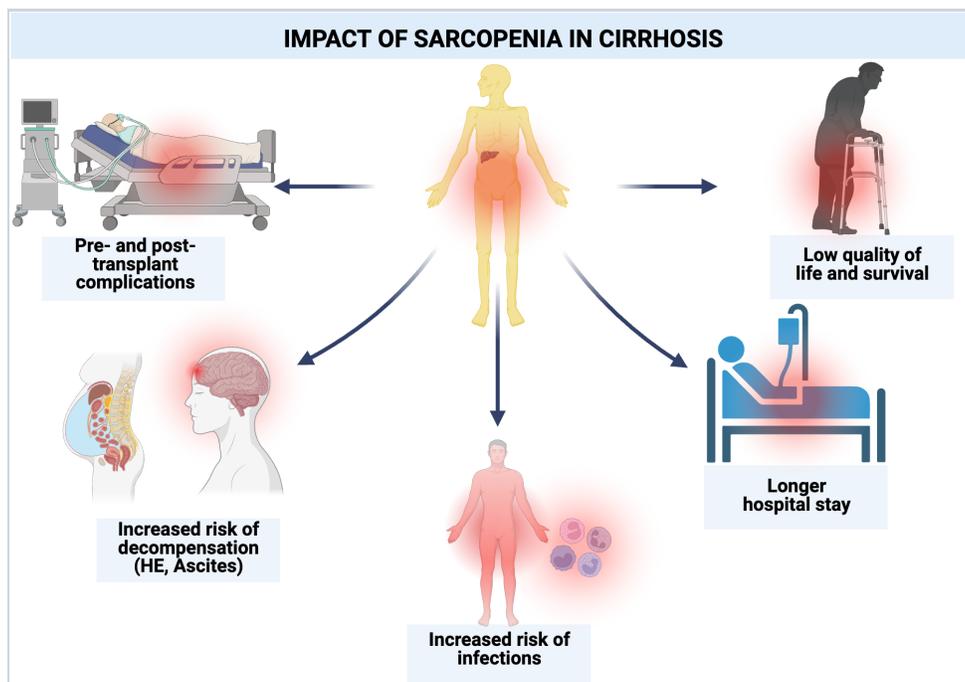
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