



GHAPP

Gastroenterology & Hepatology
Advanced Practice Providers

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Staying Healthy in Patients With Cirrhosis

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Disclosures

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Disclosures

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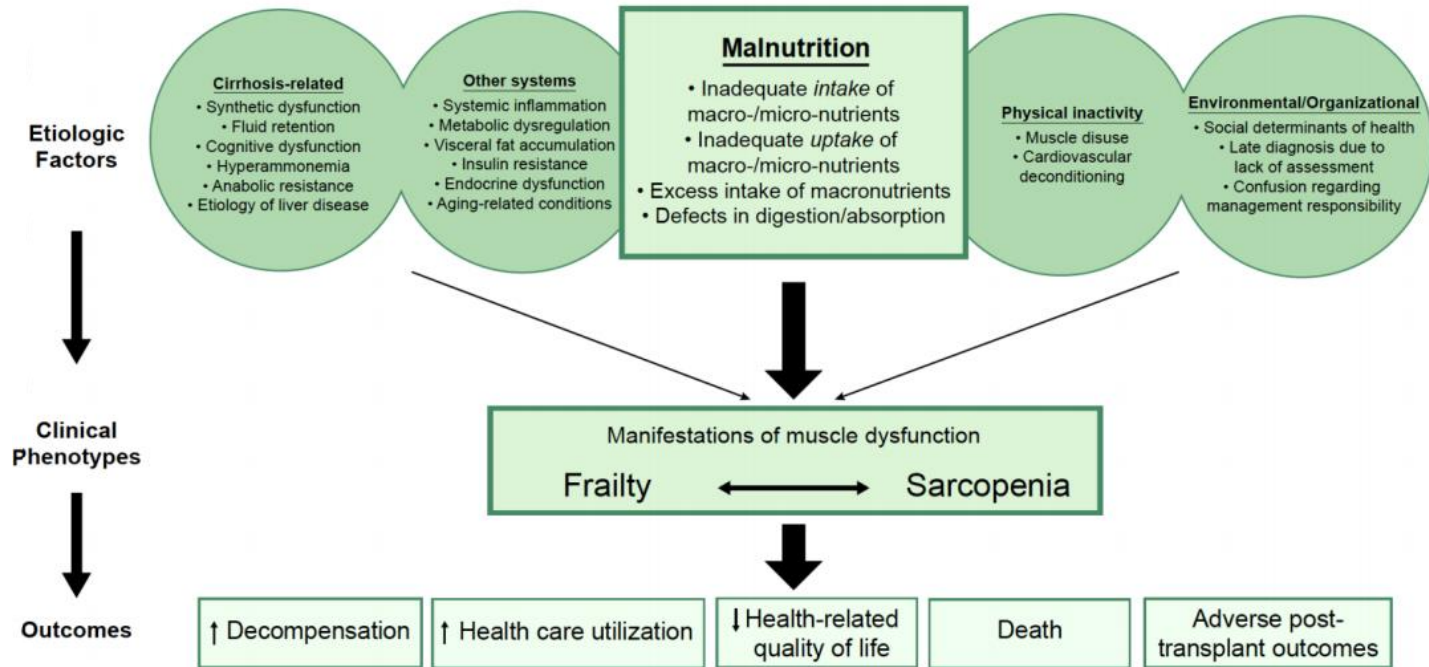
Objectives

- Discuss dietary recommendations for patients with cirrhosis
- Discuss vaccination recommendations for patients with cirrhosis
- Discuss mental health assessments of patients with cirrhosis

Malnutrition in Patients With Cirrhosis

- The diagnosis of cirrhosis predisposes patients to developing malnutrition
- Malnutrition is a deficiency of nutrients that can lead to frailty and sarcopenia
- These three concepts are often presented simultaneously in patients with cirrhosis

Malnutrition, Frailty, Sarcopenia



Important Factors Leading to Malnutrition

- Reduced oral intake secondary to
 - Uncontrolled ascites
 - Unpalatable food choices (low sodium)
 - Free water restriction due to fluid overload
 - Impaired level of consciousness
 - Frequent fasting due to procedures/hospitalizations
 - Psychosocial factors

Impaired Intake of Micronutrients

- Malabsorption in patients with cirrhosis can lead to worsening of malnutrition
 - Alcoholic cirrhosis
 - Impaired absorption of folate, thiamine, zinc
 - Cholestatic liver disease
 - Impaired absorption of fat-soluble vitamins

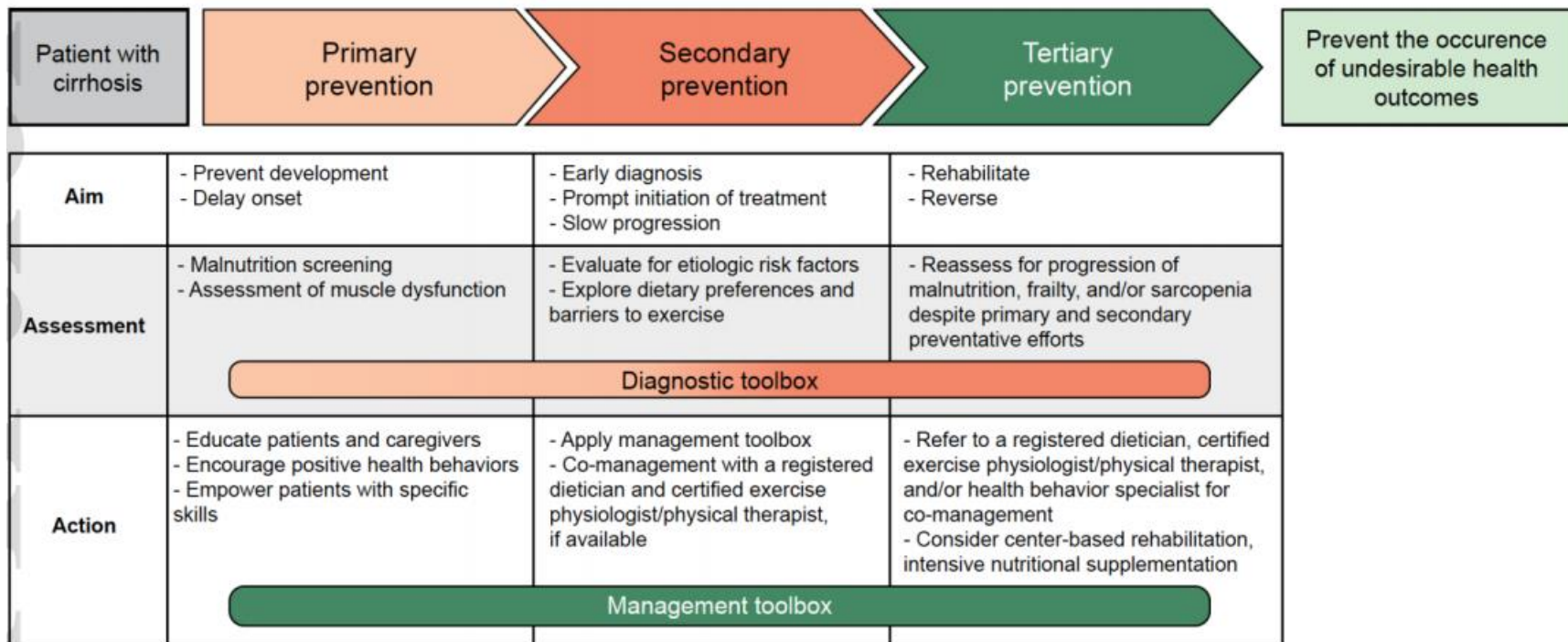
Cirrhosis Pathogenesis as Cause of Malnutrition

- Cirrhosis is known to alter the patients catabolic state causing an imbalance between energy needs and energy intake
- Cirrhosis alters protein metabolism leading to accelerated muscle breakdown

Physical Inactivity

- A small study of 53 liver transplant candidates
 - 76% of waking hours were spent being sedentary
 - Completed a mean of 3,000 steps per day
- Inactivity was associated higher liver transplant waitlist mortality

Goals of Management...Prevention



Management

- Liver specific
 - Manage the etiology of liver disease
 - Manage ascites
 - Manage hepatic encepholopathy

Dietary Management

- Calorie intake
 - At least 35 kcal/kg
- Protein intake
 - 1.2 to 1.5 g/kg body weight
- Deplete micronutrients
- Frequent small meals, minimize fasting
- Consult a registered dietitian

Physical Activity (FITT)

- Frequency
 - Aerobic: 4-7 days/week
 - Resistance: 2-3 day/week
- Intensity
 - Talk test
 - 3 set of 10-15 reps
- Time
 - Aerobic: 150 min per week
 - Resistance > 1 day/week
- Type
 - Aerobic, resistance, flexibility and balance

Vaccinations

- Hepatitis A
- Hepatitis B
- Influenza
- Zoster
- Pneumococcal (PCV13)
- Pneumococcal (PPSV23)
- COVID-19

Mental Health

- Patients with cirrhosis experience high rates of anxiety, depression and decrease quality of life
- Screen for anxiety and depression in patients with cirrhosis