

# Essential phospholipids in the liver health landscape – clinical evidence

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Hepatoprotective agents, including EPLs, remain an important part of the treatment of MAFLD as adjunctive therapies

## Treatment plan of NAFLD/MAFLD<sup>1</sup>



Lifestyle modification:  
diet & exercise

Targeting comorbid disease: diabetes, hyperlipidemia, obesity

Liver supportive agents

Liver-directed pharmacotherapy

Bariatric surgery

Rx complications

EPL

**DLPC** makes **Essentiale** different from phospholipids obtained from a normal diet<sup>2</sup>

Phospholipids from diet

DLPC

PC  
PPC  
Lecithin

Preclinical evidence show multiple MOA of EPLs<sup>3</sup>

Anti-cholestatic effect

Reduces liver fibrosis and cirrhosis

Inhibits lipid peroxidation

Increases membrane fluidity

Reduction of liver steatosis

Stimulates liver regeneration

Incorporated into body phospholipids

## Current clinical evidence supporting the use of EPLs in patients with NAFLD/MAFLD

### Improvement in MAFLD symptoms

Significant reduction in disease burden and improvement in HRQoL (e.g. asthenia, sleep disorder, irritability)<sup>4</sup>



### Clinician and patient satisfaction

High/very high satisfaction correlated with significant improvement in laboratory parameters and liver structure<sup>5</sup>

### Reduction in transaminase levels

- **Randomized open label study:** Significant reduction in ALT/AST levels in patients regardless of cardiometabolic comorbidities<sup>4</sup>
- **Systemic review of meta-analysis of RCTs:** Significant reduction in ALT/AST levels in diabetic patients when treated with EPL+AD vs AD alone<sup>6</sup>

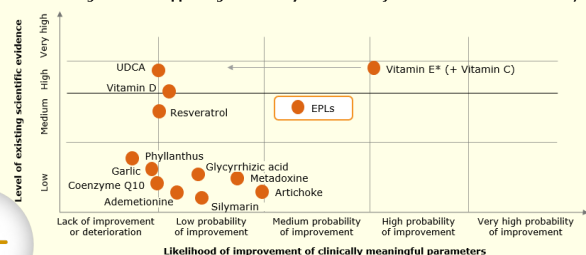


Rx with EPL

### Improvement in liver echogenicity

- In severe MAFLD and diabetes, EPL improved hepatic echo-structure, reduced signs of fatty liver and slowed fibrosis<sup>7</sup>
- **MANPOWER study:** Improved diffuse liver echogenicity independent of the number or type of comorbidities, after 24 weeks of EPL treatment<sup>6,8</sup>

Level of existing evidence supporting the efficacy of various adjunctive treatments for MAFLD/NASH:



## Key messages

Adjunctive therapy with hepatoprotective treatments is a reliable therapeutic strategy for NAFLD/MAFLD

EPLs are associated with reduced transaminase levels; improved ultrasonography and elastography results; reduced steatosis; reduced disease burden in NAFLD/MAFLD and with favourable safety profile

EPLs are among the very few hepatoprotective agents which have shown evidence-based, clinically meaningful effects in MAFLD management<sup>9</sup>

ALT, alanine aminotransferase; AST, aspartate aminotransferase; DLPC, 1,2 diinoleoyl-phosphatidylcholine; EPL, essential phospholipid; MOA, mechanism of action; PC, phosphatidyl-choline; PL, phospholipids; PPC, polyenyl-phosphatidyl-choline; MAFLD, metabolic-associated liver disease; NAFLD, non-alcoholic fatty liver disease; Rx, medical prescription; 1. Dajani A, et al. Saudi J Gastroenterol 2016;22:91-105; 2. Gundermann KJ, et al. Pharmacol Rep 2016;3:643-592; 3. Gundermann KJ, et al. Pharmacol Rep 2011;63:643-59; 4. Dajani A, et al. Arab J Gastroenterol 2015;16:99-104; 5. Ivashkin VT, et al. Drugs Real World Outcomes 2021;8:369-82; 6. Dajani A, et al. World J Clin Cases 2020;8:5235-49; 7. Sas E, et al. J Hepatol 2013;58:S409-S566. 8. Maev IV, et al. BMJ Open Gastroenterol 2020;7:e000341; 9. Dajani A, et al. Drugs Ther Perspect 2021;37:249-64