

Changing the Future of PBC

Moving Towards Solutions



Disclosures

- PBC Foundation's work is part-funded by Advanz, Calliditas, Cymabay, Dr Falk Pharma, Escient, Gilead, GSK, Intercept, Ipsen, Mirum, and Umeocrine

PBC Foundation

- 18,000 patients
- 90 countries, including 25 of 27 in EU
- Co-authors in guidelines, journal pieces, abstracts
- PREMs and PROMs recorded in App
- PBC 40
- Project 90/90
- International PBC Summit

First, Do No Harm



PBC Guidelines

Clinical Practice Guidelines



EASL Clinical Practice Guidelines: The diagnosis and management of patients with primary biliary cholangitis[☆]

European Association for the Study of the Liver^{*}

HEPATOLOGY

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Outline



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PRACTICE GUIDANCE

Primary Biliary Cholangitis: 2018 Practice Guidance from the American Association for the Study of Liver Diseases

Lindor, Keith D.¹; Bowlus, Christopher L.²; Boyer, James³; Levy, Cynthia⁴; Mayo, Marlyn⁵

Author Information[Ⓞ]

Hepatology 69(1):p 394-419, January 2019. | DOI: 10.1002/hep.30145

Metrics

Editorial

> [Hepatol Int.](#) 2022 Feb;16(1):1-23. doi: 10.1007/s12072-021-10276-6. Epub 2022 Feb 4.

APASL clinical practice guidance: the diagnosis and management of patients with primary biliary cholangitis

Hong You^{# 1}, Xiong Ma^{# 2}, Cumali Efe^{# 3}, Guiqiang Wang⁴, Sook-Hyang Jeong⁵, Kazumichi Abe⁶, Weijia Duan¹, Sha Chen¹, Yuanyuan Kong⁷, Dong Zhang⁸, Lai Wei⁹, Fu-Sheng Wang¹⁰, Han-Chieh Lin¹¹, Jin Mo Yang¹², Tawesak Tanwandee¹³, Rino A Gani¹⁴, Diana A Payawal¹⁵, Barjesh C Sharma¹⁶, Jinlin Hou¹⁷, Osamu Yokosuka¹⁸, A Kadir Dokmeci¹⁹, Darrell Crawford²⁰, Jia-Horng Kao²¹, Teerha Piratvisuth²², Dong Jin Suh²³, Laurentius A Lesmana²⁴, Jose Sollano²⁵, George Lau²⁶, Shiv K Sarin²⁷, Masao Omata^{28 29}, Atsushi Tanaka³⁰, Jidong Jia³¹

Affiliations + expand

PMID: 35119627 PMCID: [PMC8843914](#) DOI: [10.1007/s12072-021-10276-6](#)

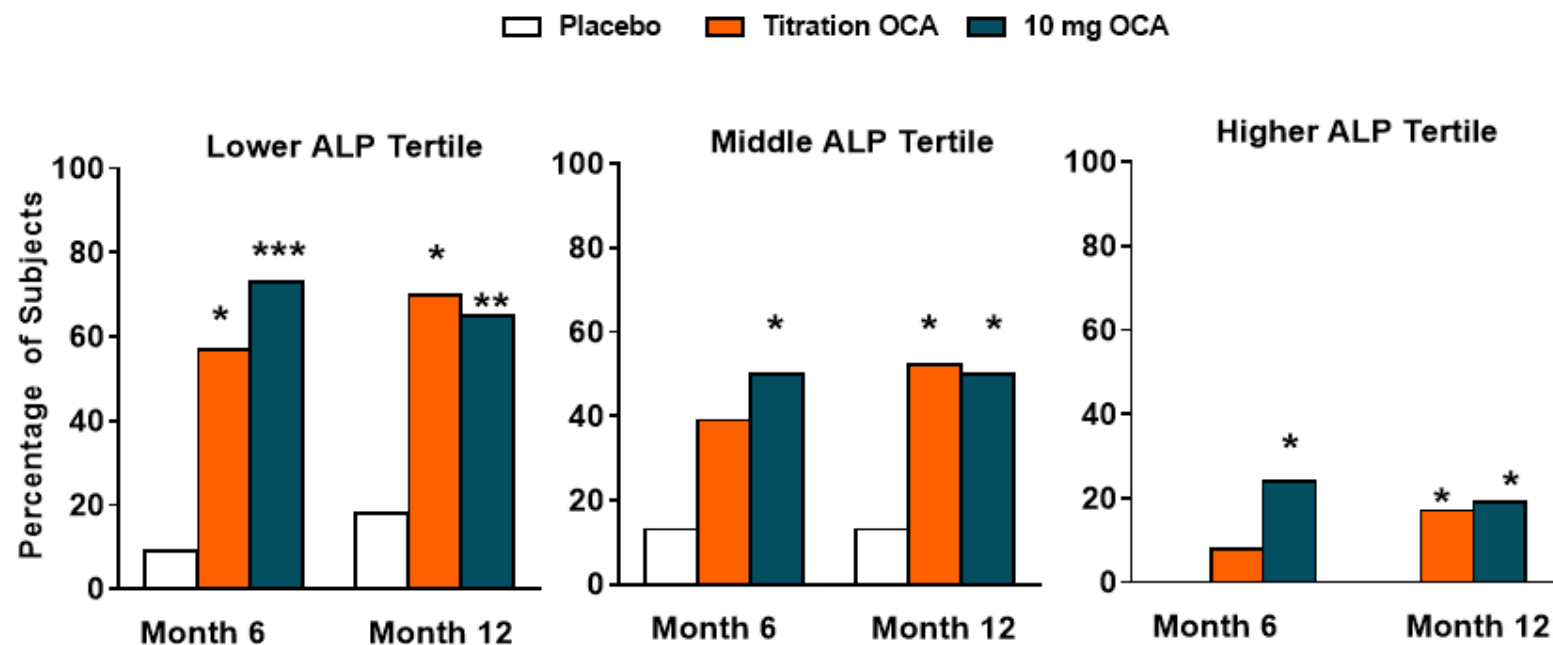


All Patients are Equal

But some patients are more
equal than others

POISE

Percentage of Subjects Achieving Primary Composite Endpoint Summarized by Baseline ALP Tertile



Primary Endpoint at Month 12: Proportion of subjects achieving ALP $<1.67 \times$ ULN with bilirubin $\leq$ ULN and $\geq 15\%$ reduction in ALP

Lower ALP Tertile, Baseline ALP <250.4 U/L; (Placebo n=22, Titration OCA n=23, OCA 10 mg n=26); **Middle ALP Tertile**, Baseline ALP ≥ 250.4 U/L to <341.9 U/L; (Placebo n=24, Titration OCA n=23, OCA 10 mg n=26); **Higher ALP Tertile**, Baseline ALP ≥ 341.9 U/L; (Placebo n=27, Titration OCA n=24, OCA 10 mg n=21).

*n<0.05, **n<0.01, ***p<0.0001; P values for comparing treatments were obtained using CMH General Association test stratified by randomization strata factor.

Group: 5 mg OCA for 6 months then titrated to 10 mg OCA if tolerated & ALP $\geq 1.67 \times$ ULN or bilirubin $>$ ULN.

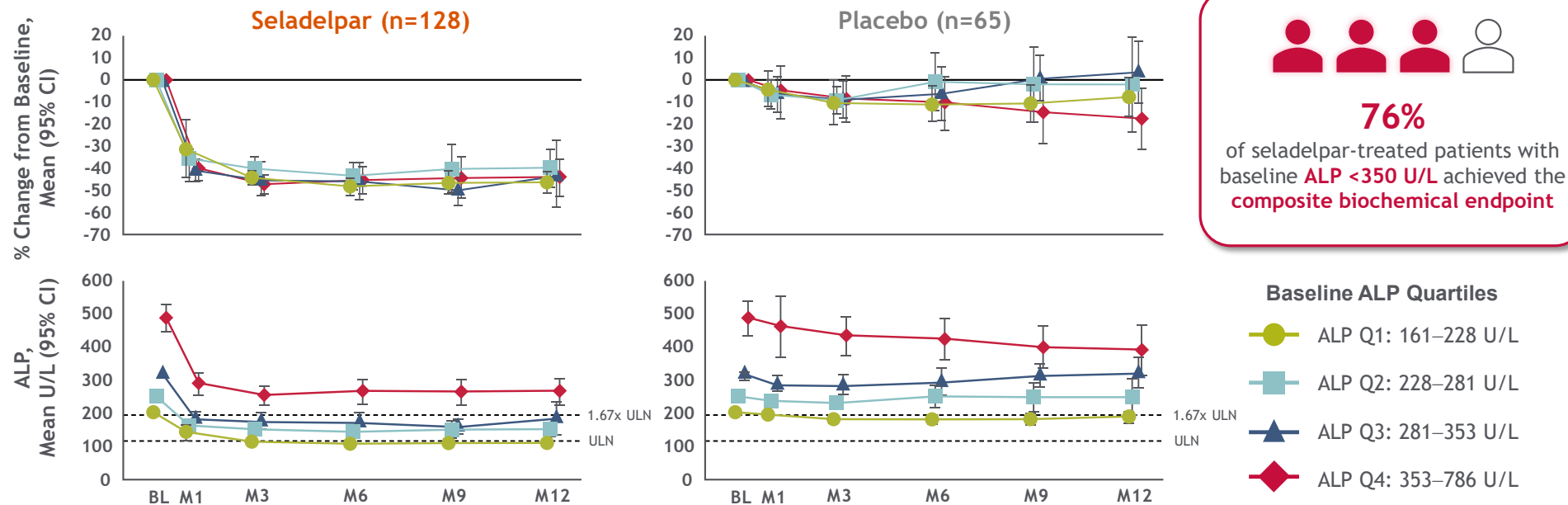
Andreone P, et al. Presented at AASLD 2014, The Liver Meeting, Boston. Poster 318.



ALP Changes by Baseline ALP Quartile

Analysis of seladelpar 10 mg vs placebo across baseline ALP quartiles up to Month 12 in the RESPONSE trial

ALP Changes by Baseline ALP Quartile



Seladelpar led to robust and consistent ALP improvement, regardless of baseline ALP

¹ ALP ULN=116 U/L
ALP, alkaline phosphatase; BL, baseline; CI, confidence interval; M, month; PBC, primary biliary cholangitis; ULN, upper limit of normal; Q, quartile.
Kowdley K, et al. AASLD 2024. Poster #4339

External Use and Distribution



It's Just Patients

Which Patients Might Benefit From ALP Normalization?

PARIS II response criteria

- ALP and AST $< 1.5 \times$ ULN and Normal TB

International cohort study

1047 patients with PBC

Adequate PARIS II response after ≥ 12 mo of UDCA

Normal ALP (**66%**)

vs

ALP $1-1.5 \times$ ULN (**34%**)

Gain in 10-y survival in case of normal ALP levels?

Subgroup analyses based on age and liver stiffness

Overall
in 1047 patients

7.6 mo
(95% CI: 2.7, 12.6)
 $P = .003$

Age > 62 y
AND
LSM < 10 kPa

1.8 mo
(95% CI: -5.0, 8.7)
 $P = .603$

Age ≤ 62 y
OR
LSM ≥ 10 kPa

8.9 mo
(95% CI: 1.9, 15.9)
 $P = .013$

Age ≤ 62 y
AND
LSM ≥ 10 kPa

52.8 mo
(95% CI: 45.7, 59.9)
 $P < .001$

Which Patients Might Benefit From ALP Normalization?

Normal ALP greatest prognostic benefit in

➤ **Young Age <62yr**

➤ **Advanced Fibrosis LSM>10**

International cohort study

1047 patients with PBC

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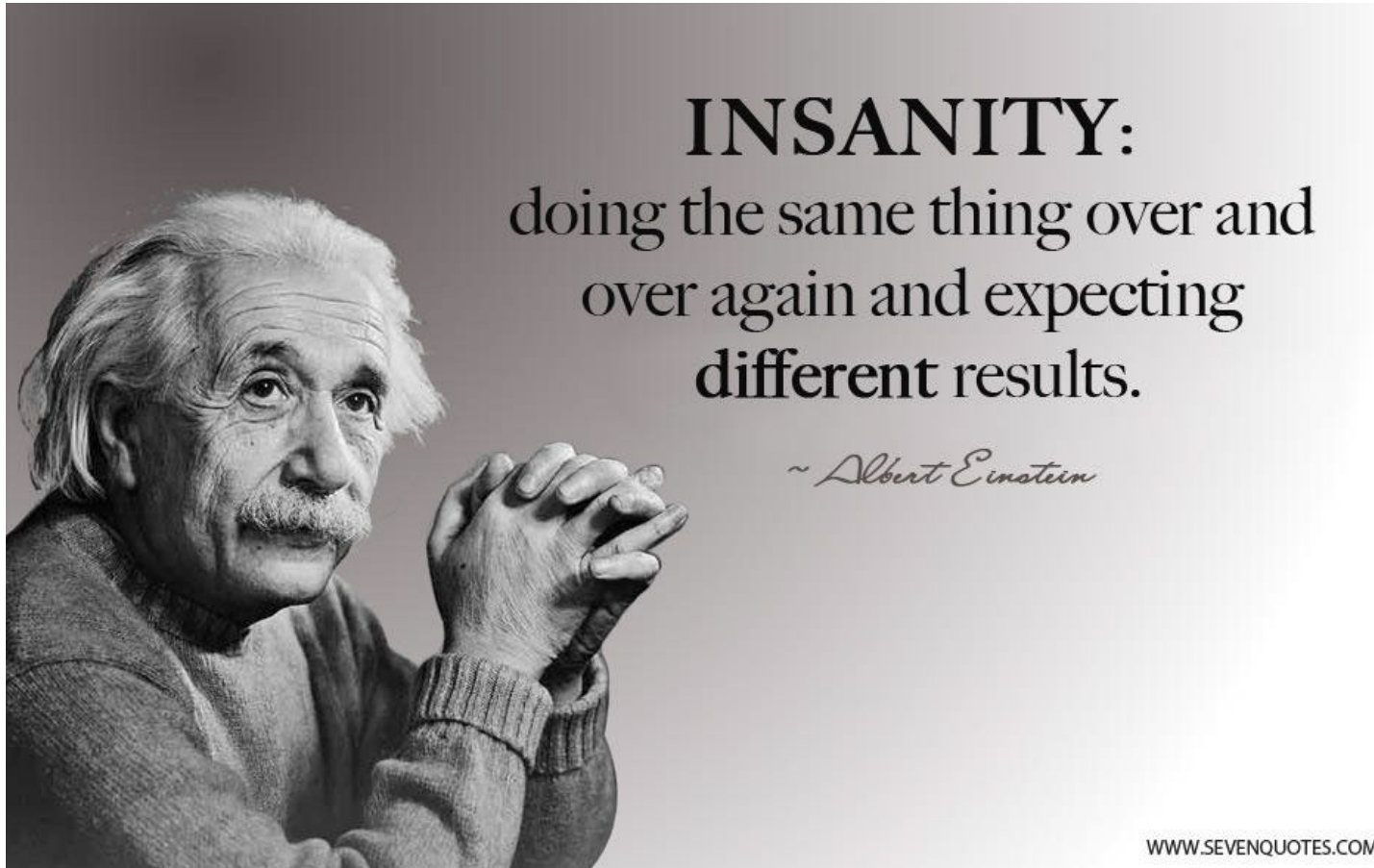
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52.8 mo
(95% CI: 45.7, 59.9)
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- LSM, liver stiffness measurement.
- Corpechot C, et al. Hepatology. 2024;79:39-48.

Is It Really Just Patients?

Are the Regulators Insane?!?



Gambling with Patients' Lives

PBC Roulette



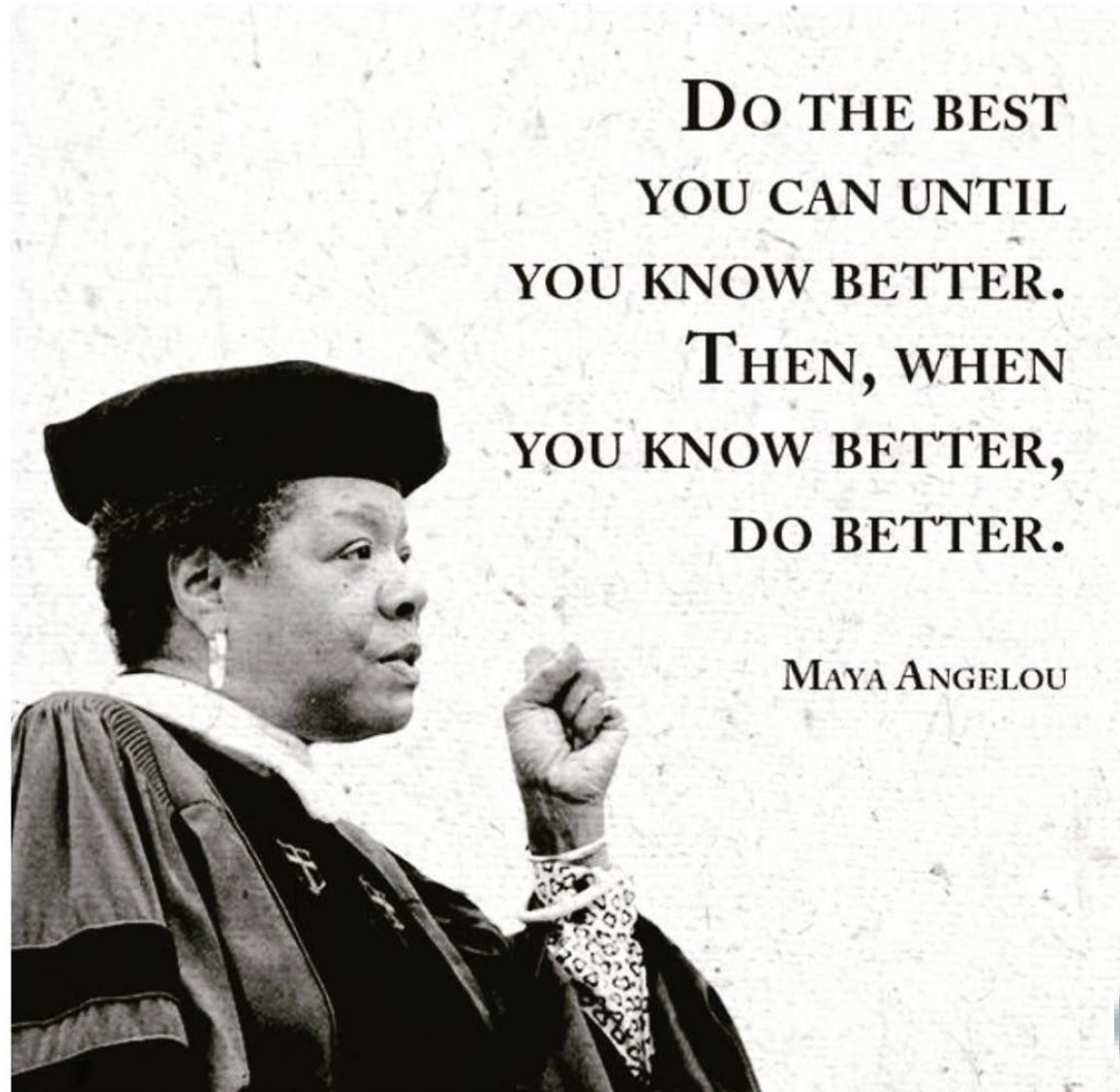
Symptoms				Treatments				Outcomes				Prognosis
Female	9 in 10					1 in 10	Male					
1	4	7	10	13	16	19	22	25	28	31	34	
Fatigue	Bone Pain	Brain Fog	Pruritus	Fenofibrate	FXR	Bezafibrate	PPAR	Transplant	Cirrhosis	Varices	Death	
2	5	8	11	14	17	20	23	26	29	32	35	
Sicca	Pruritus	Comorbidity	Fatigue	PPAR	Placebo	Urso	Fenofibrate	Death	H.E.	Cirrhosis	Portal Hypertension	
3	6	9	12	15	18	21	24	27	30	33	36	
Bone Pain	Brain Fog	Sicca	Comorbidity	FXR	Urso	Placebo	Bezafibrate	Portal Hypertension	Varices	Transplant	H.E.	



Moving Towards Solutions?

- Gold Standard
- RCTs are not random
- Unattainable $\neq$ negative
- Imperfections
- It's OK to be wrong (and not even have to admit it)
- Be open to a better way

Moving Towards Solutions



Thank you

If you think you are too small to make a difference, try sleeping with a mosquito in the room.

Dalai Lama

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