MELD 3.0 Score Worksheet

Patient's name: _____ Date: _____ dd / mm / yyyy

Medical record no.: _____ Completed by: _____

ABOUT THIS SCORE

MELD 3.0 estimates 90-day mortality in chronic liver disease and sets priority for deceased-donor liver allocation in the United States. OPTN replaced MELDNa with MELD 3.0 on 13 July 2023 for candidates aged 12 and over. PELDCr is used below age 12.

Apply the bounds before you calculate

Bilirubin, INR and creatinine are each floored at 1.0. Creatinine is capped at 3.0 mg/dL, and is set to 3.0 if the patient had dialysis twice, or 24 hours of CVVHD, in the past week. Sodium is clamped to 125–137 mmol/L and albumin to 1.5–3.5 g/dL.

RECORD THE LABORATORY VALUES

Total bilirubin (mg/dL) — Bounded value used:

Total bilirubin — Lab date: _____ dd / mm / yyyy INR (-) — Bounded value used: _____

INR — Lab date: _____ dd / mm / yyyy

Serum creatinine (mg/dL) — Bounded value used:

Serum creatinine — Lab date: _____ dd / mm / yyyy

Serum sodium (mmol/L) — Bounded value used:

Serum sodium — Lab date: _____ dd / mm / yyyy

Serum albumin (g/dL) — Bounded value used:

Serum albumin — Lab date: _____ dd / mm / yyyy

Dialysis or 24 h CVVHD twice in the past week

◯ Yes - set creatinine to 3.0 ◯ No

Sex term

◯ Female - add 1.33 ◯ Male - no term

THE EQUATION

MELD 3.0 = 1.33 (if female) + 4.56 x ln(bilirubin) + 0.82 x (137 - sodium) - 0.24 x (137 - sodium) x ln(bilirubin) + 9.09 x ln(INR) + 11.14 x ln(creatinine) + 1.85 x (3.5 - albumin) - 1.83 x (3.5 - albumin) x ln(creatinine) + 6

Two terms calculators often drop

MELD 3.0 carries two interaction terms that MELDNa did not: bilirubin x sodium, and albumin x creatinine. The albumin x creatinine term is built so that albumin counts for less as creatinine rises. Omitting either term, or the trailing + 6, gives the wrong score.

1.33 if female — Value: _____ 1.33 if female — Working: _____

4.56 x ln(bilirubin) — Value: _____ 4.56 x ln(bilirubin) — Working: _____

0.82 x (137 − Na) — Value: _____ 0.82 x (137 − Na) — Working: _____

- 0.24 x (137 − Na) x ln(bilirubin) — Value:

- 0.24 x (137 − Na) x ln(bilirubin) — Working:

9.09 x ln(INR) — Value: _____ 9.09 x ln(INR) — Working: _____

11.14 x ln(creatinine) — Value: _____ 11.14 x ln(creatinine) — Working: _____

1.85 x (3.5 - albumin) — Value: _____ 1.85 x (3.5 - albumin) — Working: _____

- 1.83 x (3.5 - albumin) x ln(creatinine) — Value:

- 1.83 x (3.5 - albumin) x ln(creatinine) — Working:

+ 6 — Value: _____ + 6 — Working: _____

TOTAL, rounded to a whole number: _____

Candidates listed before age 18

For a candidate listed before 18 who is now 12 or over, drop the sex term and use a constant of 7.33 instead of 6.

RESULT

MELD 3.0 score (6–40): _____ Score date: _____ dd / mm / yyyy

Next recertification due: _____ dd / mm / yyyy Clinician: _____

The score is reported as a whole number and is bounded at 6 and 40. A value above 40 is recorded as 40.

Clinical context, exception points requested, and plan

Sources: Kim WR, Mannalithara A, Heimbach JK, et al. MELD 3.0: The Model for End-Stage Liver Disease Updated for the Modern Era. Gastroenterology. 2021;161(6):1887–1895. · OPTN Policy 9, Allocation of Livers and Liver-Intestines. MELD 3.0 implemented 13 July 2023. · General-purpose record sheet. Confirm the current OPTN policy before using a score for allocation.