**Supplementary table 1:** Demographics and clinical characteristics of the validation cohort comparing patients with suppressed vitamin A and normal vitamin A.

| Parameter                  | Total Cohort (N = 44) | Suppressed Vitamin A (N = 21) | Normal Vitamin A (N = 23) | P Value |
|----------------------------|------------------------|-------------------------------|---------------------------|---------|
| Age (years) MEDIAN; IQR    | 62 (53; 67)            | 59 (52; 64)                   | 64 (54; 69)               | 0.16    |
| CHILD PUGH * Stadium A (N; %) | 15 (34%)              | 6 (29%)                       | 9 (39%)                   | 0.19    |
| * Stadium B (N; %)         | 16 (36%)               | 7 (33%)                       | 9 (39%)                   |         |
| * Stadium C (N; %)         | 12 (27%)               | 8 (38%)                       | 4 (17%)                   |         |
| MELD MEDIAN; IQR           | 13 (9; 18)             | 14 (10; 18)                   | 12 (7; 17)                | 0.32    |
| Hemoglobin (g/dl) MEDIAN; IQR | 12.6 (10.5; 14)       | 11.2 (8.5; 13.4)              | 12.7 (11; 14)             | 0.1     |
| Platelets (/nl) MEDIAN; IQR | 139 (92; 211)         | 103 (84; 170)                 | 175 (124; 244)            | 0.01    |
| White blood cells (/nl) MEDIAN; IQR | 7.3 (5.3; 10)         | 6.41 (4.3; 10.5)              | 7.66 (6; 10)              | 0.44    |
| ALT (U/l) MEDIAN; IQR      | 33 (22; 64)            | 29.5 (25; 53)                 | 45 (21; 77)               | 0.18    |
| AST (U/l) MEDIAN; IQR      | 58 (33; 130)           | 65 (44; 112)                  | 57 (31; 137)              | 0.7     |
| yGT (U/l) MEDIAN; IQR      | 155 (61; 242)          | 170 (68; 244)                 | 151 (53; 236)             | 0.5     |
| Alkaline Phosphatase (U/l) MEDIAN; IQR | 133 (95; 168)       | 153 (120; 175)                | 109 (82; 167)             | 0.5     |
| Bilirubin (mg/dl) MEDIAN; IQR | 2.2 (1.15; 4)          | 3.37 (1.47; 4.42)             | 1.42 (1; 3)               | 0.6     |
|                          | Albumin (g/l) | INR | Creatinine (mg/dl) | CRP (mg/dl) | Ascites (N; %) | Hepatic Encephalopathy (N; %) | Hepatorenal Syndrome (N; %) | Esophageal varices bleeding (N; %) |
|--------------------------|--------------|-----|--------------------|-------------|---------------|-------------------------------|----------------------------|----------------------------------|
| MEDIAN; IQR              | 32 (28; 38)  | 1.3 (1.13; 1.47) | 0.9 (0.71; 1.23) | 10 (3.5; 19) | 29 (66%)       | 8 (18%)                       | 5 (11%)                      | 4 (9%)                           |
|                          | 29 (25; 32)  | 1.41 (1.16; 1.57) | 0.88 (0.69; 1.21) | 9 (3.1; 16.1)| 16 (76%)       | 6 (29%)                       | 2 (10%)                       | 4 (19%)                          |
|                          | 38 (33; 43)  | 1.21 (1; 1.3)     | 0.96 (0.76; 1.54) | 16 (4.8; 40.1)| 13 (57%)       | 2 (9%)                        |                               | 0 (0%)                           |
|                          |              |                 |                   |              |               |                               |                             |                                  |
|                          |              |                 |                   |              |               |                               |                             |                                  |
|                          |              |                 |                   |              |               |                               |                             |                                  |
|                          |              |                 |                   |              |               |                               |                             |                                  |
|                          |              |                 |                   |              |               |                               |                             |                                  |
|                          |              |                 |                   |              |               |                               |                             |                                  |
|                          |              |                 |                   |              |               |                               |                             |                                  |

Data are expressed as medians and frequencies and percentages.

Abbreviations: IQR: interquartile range; WBC: white blood cells; MELD: model of end-stage liver disease; INR: international normalized ratio