|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | | **Bilirubin** | | |
| **Collected** | **Not collected** | **p-value** |
| **(n=399)** | **(n=253)** |
| **N** | | **399 (%)** | **253 (%)** | **0.641** |
| Chronic liver disease | No (0) | 337 (84.5) | 226 (89.3) | 8 |
| OH (1) | 31 (7.8) | 14 (5.5) | - |
| HCV (2) | 12 (3) | 4 (1.6) | - |
| HBV (3) | 4 (1) | 1 (0.4) | - |
| NASH (4) | 4 (1) | 2 (0.8) | - |
| Others (5) | 11(2.8) | 6 (2.4) | - |
| Missing data | 0 | 0 | - |
| Gender | Female | 204 (51.1) | 130(51.4) | 1 |
| Localization of primary cancer | Liver | 46 (9.2) | 23 (9.1) | 0.731 |
| Biliary | 23 (4.6) | 13 (5.1) | 8 |
| Pancreas | 79 (15.8) | 49 (19.4) | - |
| Other | 251 (50.3) | 168 (66.4) | - |
| Encephalopathy | Yes | 82 (20.6) | 81 (32.4) | 0.001 |
|  | 1 | 3 | 1 |
| Infection | Yes | 97 (24.3) | 48 (19.0) | 0.133 |
| 4 |
| Spontaneous bacterial peritonitis | Yes | 8 (2.0) | 8 (3.2) | 0.497 |
| Missing data | 0 | 1 | 2 |
| Gastrointestinal bleeding | Yes | 16 (4.0) | 11 (4.4) | 0.991 |
| Missing data | 3 | 2 | 8 |
| Dyspnea | Yes | 136 (34.1) | 90 (36.0) | 0.679 |
| Missing data | 0 | 3 | 1 |
| Oral intake | Nothing Sips | 19 (4.8) | 31 (12.6) | 0 |
| Missing data | 85 (21.5) | 66 (26.7) | 2 |
| Jaundice | Yes | 106 (26.6) | 67 (26.6) | >0.99 |
| Missing data | 0 | 1 |  |
| ECOG score | 1 or 2 | 21 (5.3) | 9 (3.6) | 0.006 |
| 3 | 254 (63.8) | 133 (53.4) | 9 |
| 4 | 123 (30.9) | 107 (43.0) |  |
| Missing data | 1 | 4 |  |
| Age (years) | Median (IQR) | 73.0 (64.5 to 81.0) | 73.0 (64 to 81) | 0.77 |
| 7 |
| Albumin, g/L | Median (IQR) | 26 (21 to 30) | 22.5 (21.0 to 28.9) | 0.192 |
| Missing data | 28 | 227 | 6 |
| Urea, mmol/L | Median (IQR) | 7.3 (4.9 to 11.8) | 7.0 (5.2 to 11.5) | 0.729 |
| Missing data | 13 | 217 | 5 |
| OH: alcoholic; HCV: hepatitis C virus; HBV: hepatitis B virus; NASH: non-alcoholic steatohepatitis; IQRL: interquartile range. | | | | |

**Appendix 1:** Comparison of patient characteristics according to the collection or not of

Bilirubin.



|  |  |  |
| --- | --- | --- |
| **Variables** | **Survival (95% confidence interval)** | |
| Days from admission to palliative care | Patients with collected bilirubin (n=399) | Patients with no collected bilirubin (n=253) |
| 7 | 70.1 (65.7 to 74.8) | 58.1 (52.3 to 64.5) |
| 30 | 22.3 (18.5 to 26.8) | 10.4 (7.3 to 15.0) |
| 60 | 8.0 (5.7 to 11.3) | 2.8 (1.4 to 5.8) |
| 90 | 2.3 (1.2 to 4.5) | 1.2 (0.4 to 3.7) |

\*Survival curves were compared using a log-rank test.

**Appendix 2:** Kaplan-Meier survival estimates in patients with bilirubin collected and in

patients with no bilirubin collecion.\*

|  |  |
| --- | --- |
| Factor | Regression coefficient (standard error) |
| Intercept | -3.16 (0.31) |
| Oral intake | - |
| Normal | 0 (reference) |
| Sips | 1.22 (0.41) |
| Nothing | 2.68 (0.89) |
| ECOG score | - |
| 1, 2 or 3 | 0 (reference) |
| 4 | 2.52 (0.38) |
| Bilirubin |  |
| ≤ 25 | 0 (reference) |
| >25 | 0.90 (0.34) |
| Urea |  |
| <15 | 0 (reference) |
| ≥ 15 | 1.47 (0.41) |

**Appendix 3:** Equation for predicting 7-day mortality showing the regression coefficients of the retained logistic regression model.

For a patient, the sum of the regression coefficients is calculated according to the level of factors. For instance, a patient with the level “sips” for the factor “oral intake”, an ECOG score of 2, a bilirubin level of 15 and a urea level of 17, the sum of the regression coefficients (including the intercept) is -3.16+1.22+1.47=-0.47.

The 7-day mortality predicted by the model for this patient is exp(-0.47)/(1+exp(-

0.47))=0.412 or 41.2%.



**Appendix 4**: Survival curves according to the 7-day mortality predicted by the model.