Supplementary Table 1. Multivariable logistic regression analysis for all-cause 30-day mortality associated with DB

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Adjusted  odds ratio | 95% confidence interval | | p value |
| Sex | Female | 0.57 | 0.52 | 0.62 | <0.001 |
| Age (years) | 20-49 | Reference |  |  |  |
|  | 50-64 | 1.29 | 0.99 | 1.68 | 0.062 |
|  | 65-74 | 1.47 | 1.13 | 1.90 | 0.004 |
|  | 75-84 | 1.55 | 1.19 | 2.02 | 0.001 |
|  | ≥85 | 1.57 | 1.15 | 2.14 | 0.004 |
| BMI (kg/m2) | 18.5-24.9 | Reference |  |  |  |
|  | <18.5 | 1.43 | 1.30 | 1.59 | <0.001 |
|  | 25-29.9 | 0.95 | 0.84 | 1.07 | 0.426 |
|  | ≥30 | 0.96 | 0.69 | 1.32 | 0.785 |
| Barthel Index score | 95-100 | Reference |  |  |  |
|  | 0-90 | 3.29 | 2.96 | 3.65 | <0.001 |
| Cancer stage | I | Reference |  |  |  |
|  | II | 0.97 | 0.75 | 1.26 | 0.860 |
|  | III | 1.07 | 0.86 | 1.32 | 0.514 |
|  | IV | 1.29 | 1.07 | 1.55 | 0.006 |
| HF |  | 1.71 | 1.44 | 2.03 | <0.001 |
| CRF |  | 1.64 | 1.34 | 2.03 | <0.001 |
| CLD |  | 1.48 | 1.21 | 1.82 | <0.001 |
| CvD |  | 1.16 | 0.99 | 1.37 | 0.070 |
| COPD |  | 0.79 | 0.69 | 0.90 | <0.001 |
| BA |  | 0.68 | 0.53 | 0.87 | 0.002 |
| IP |  | 2.21 | 1.93 | 2.53 | <0.001 |
| OMN |  | 2.34 | 2.15 | 2.55 | <0.001 |
| cBB |  | 0.81 | 0.73 | 0.89 | <0.001 |
| rEBUS-GS |  | 0.45 | 0.35 | 0.58 | <0.001 |
| EBUS-TBNA |  | 0.63 | 0.52 | 0.77 | <0.001 |
| Hospital volume | Very low ( <51) | Reference |  |  |  |
| (cases per year) | Low (51-100) | 1.02 | 0.88 | 1.18 | 0.830 |
|  | High (101-300) | 0.77 | 0.66 | 0.88 | <0.001 |
|  | Very high ( >301) | 0.73 | 0.58 | 0.91 | 0.005 |

DB, diagnostic bronchoscopy; HF, heart failure; CRF, chronic renal failure; CLD, chronic liver disease; CvD, cerebrovascular disease; COPD, chronic obstructive pulmonary disease; BA, bronchial asthma; IP, interstitial pneumonia; OMN, other malignant neoplasms; cBB, conventional bronchoscopic biopsy; rEBUS-GS, radial endobronchial ultrasound with guide sheath method; EBUS-TBNA, endobronchial ultrasound-guided transbronchial needle aspiration

Supplementary Table 2. Multivariable logistic regression analysis for all-cause 30-day mortality associated with DB in patients with low ADL (Barthel Index score < 95)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Adjusted  odds ratio | 95% confidence interval | | p value |
| Sex | Female | 0.59 | 0.51 | 0.69 | <0.001 |
| Age (years) | 20-49 | Reference |  |  |  |
|  | 50-64 | 1.45 | 0.88 | 2.38 | 0.147 |
|  | 65-74 | 1.47 | 0.89 | 2.42 | 0.128 |
|  | 75-84 | 1.35 | 0.82 | 2.23 | 0.241 |
|  | ≥85 | 1.40 | 0.82 | 2.40 | 0.216 |
| BMI (kg/m2) | 18.5-24.9 | Reference |  |  |  |
|  | <18.5 | 1.50 | 1.26 | 1.77 | <0.001 |
|  | 25-29.9 | 1.06 | 0.84 | 1.34 | 0.618 |
|  | ≥30 | 0.91 | 0.50 | 1.68 | 0.781 |
| Cancer stage | I | Reference |  |  |  |
|  | II | 1.01 | 0.63 | 1.62 | 0.952 |
|  | III | 1.16 | 0.79 | 1.73 | 0.432 |
|  | IV | 1.35 | 0.94 | 1.93 | 0.101 |
| HF |  | 1.30 | 0.99 | 1.69 | 0.051 |
| CRF |  | 1.58 | 1.11 | 2.26 | 0.011 |
| CLD |  | 1.15 | 0.81 | 1.64 | 0.427 |
| CvD |  | 1.02 | 0.80 | 1.31 | 0.833 |
| COPD |  | 0.86 | 0.69 | 1.07 | 0.174 |
| BA |  | 0.46 | 0.29 | 0.72 | 0.001 |
| IP |  | 1.87 | 1.47 | 2.38 | <0.001 |
| OMN |  | 1.45 | 1.27 | 1.67 | <0.001 |
| cBB |  | 0.79 | 0.68 | 0.91 | 0.001 |
| rEBUS-GS |  | 0.56 | 0.38 | 0.85 | 0.006 |
| EBUS-TBNA |  | 0.64 | 0.47 | 0.89 | 0.008 |
| Hospital volume | Very low ( <51) | Reference |  |  |  |
| (cases per year) | Low (51-100) | 1.09 | 0.90 | 1.33 | 0.364 |
|  | High (101-300) | 0.80 | 0.65 | 0.97 | 0.021 |
|  | Very high ( >301) | 0.84 | 0.62 | 1.15 | 0.276 |

DB, diagnostic bronchoscopy; HF, heart failure; CRF, chronic renal failure; CLD, chronic liver disease; CvD, cerebrovascular disease; COPD, chronic obstructive pulmonary disease; BA, bronchial asthma; IP, interstitial pneumonia; OMN, other malignant neoplasms; cBB, conventional bronchoscopic biopsy; rEBUS-GS, radial endobronchial ultrasound with guide sheath method; EBUS-TBNA, endobronchial ultrasound-guided transbronchial needle aspiration

Supplementary Table 3. Multivariable logistic regression analysis for all-cause 30-day mortality associated with DB in patients with stage IV lung cancer

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Adjusted  odds ratio | 95% confidence interval | | p value |
| Sex | Female | 0.51 | 0.41 | 0.62 | <0.001 |
| Age (years) | 20-49 | Reference |  |  |  |
|  | 50-64 | 1.85 | 0.95 | 3.62 | 0.071 |
|  | 65-74 | 2.19 | 1.14 | 4.26 | 0.019 |
|  | 75-84 | 2.09 | 1.08 | 4.07 | 0.029 |
|  | ≥85 | 2.31 | 1.05 | 5.08 | 0.037 |
| BMI (kg/m2) | 18.5-24.9 | Reference |  |  |  |
|  | <18.5 | 1.52 | 1.20 | 1.94 | 0.001 |
|  | 25-29.9 | 0.951 | 0.71 | 1.27 | 0.736 |
|  | ≥30 | 1.35 | 0.64 | 2.84 | 0.425 |
| Barthel Index score | 95-100 | Reference |  |  |  |
|  | 0-90 | 3.19 | 2.62 | 3.88 | <0.001 |
| HF |  | 1.20 | 0.80 | 1.80 | 0.387 |
| CRF |  | 2.28 | 1.40 | 3.73 | 0.001 |
| CLD |  | 1.52 | 0.93 | 2.49 | 0.095 |
| CvD |  | 1.08 | 0.74 | 1.56 | 0.696 |
| COPD |  | 0.79 | 0.58 | 1.08 | 0.137 |
| BA |  | 0.68 | 0.37 | 1.24 | 0.21 |
| IP |  | 1.91 | 1.36 | 2.67 | <0.001 |
| OMN |  | 1.60 | 1.30 | 1.95 | <0.001 |
| cBB |  | 0.87 | 0.70 | 1.07 | 0.202 |
| rEBUS-GS |  | 0.70 | 0.42 | 1.15 | 0.156 |
| EBUS-TBNA |  | 0.69 | 0.46 | 1.04 | 0.076 |
| Hospital volume | Very low ( <51) | Reference |  |  |  |
| (cases per year) | Low (51-100) | 0.85 | 0.66 | 1.12 | 0.268 |
|  | High (101-300) | 0.63 | 0.50 | 0.82 | <0.001 |
|  | Very high ( >301) | 0.54 | 0.37 | 0.81 | 0.002 |

DB, diagnostic bronchoscopy; HF, heart failure; CRF, chronic renal failure; CLD, chronic liver disease; CvD, cerebrovascular disease; COPD, chronic obstructive pulmonary disease; BA, bronchial asthma; IP, interstitial pneumonia; OMN, other malignant neoplasms; cBB, conventional bronchoscopic biopsy; rEBUS-GS, radial endobronchial ultrasound with guide sheath method; EBUS-TBNA, endobronchial ultrasound-guided transbronchial needle aspiration