**Supplementary Table 1: Tumor entities of all cancer patients**

|  |  |  |
| --- | --- | --- |
|  | **Solid/ hematologic cancer** | **n (%)** |
| Breast | solid | 61 (14) |
| Lung and bronchus | solid | 36 (8) |
| Colorectal  | solid | 40 (9) |
| Pancreas | solid | 17 (4) |
| Oesophagus | solid | 8 (2) |
| Liver and bile duct | solid | 6 (1) |
| Stomach | solid | 11 (2) |
| Oral cavity and pharynx | solid | 20 (5) |
| Choroid melanoma | solid | 34 (8) |
| Gynaecologic (vulva, cervix, fallopian tube, ovary, uterus) | solid | 12 (3) |
| Prostate | solid | 10 (2) |
| Other cancers (major salivary glands, brain, thyroid gland, larynx, soft tissue sarcoma, kidney, urogenital, testicular, malignant melanoma of the skin, urothelial, thymus, peritoneal mesothelioma, cancer of unknown primary) | solid | 47 (11) |
| Non-Hodgkin lymphoma | hematological | 95 (21) |
| Classic Hodgkin-Lymphoma | hematological | 29 (7) |
| Multiple myeloma | hematological | 16 (4) |

**Supplementary Table 2: Univariate Cox-regression analyses and documentation of multivariable model creation**

|  |  |  |
| --- | --- | --- |
|  | **Univariate analysis** | **Significant (p<0.05) in the multivariable model** |
| **Measurement** | **Hazard ratio** |  **95% CI** | **p-value** | **after backward elimination** | **after forward elimination** |
| **Clinical characteristics** |  |  |  |  |  |
| Age (per 1 year) | 1.02 | 1.01-1.03 |  <0.001\* | x | x |
| Sex (female vs male) | 0.99 | 0.79-1.25 | 0.940 |  |  |
| BMI (per 1 point increase) | 0.95 | 0.93-0.98 | <0.001\* |  |  |
| Cancer stage (per 1 grade increase) | 2.08 | 1.72-2.52 |  <0.001\* | x | x |
| Cancer type (solid vs. haematological) | 0.25 | 0.19-0.34 |  <0.001\* | x | x |
| Anti-cancer therapy-naive (yes vs. no) | 0.51 | 0.36-0.73 |  <0.001\* |  |  |
| Reason for admission to the hospital (staging vs. anti-cancer therapy vs. worsening of the clinical condition) | 2.00 | 1.69-2.35 | <0.001\* | x | x |
| Current smoker (yes vs. no) | 1.04 | 0.92-1.18 | 0.518 |  |  |
| ECOG (per 1 grade increase) | 1.79 | 1.61-2.00 |  <0.001\* | x | x |
| **Cardiovascular parameters** |  |  |  |  |  |
| Systolic blood pressure (per 1 mmHg) | 0.99 | 0.98-1.00 | 0.003\* |  |  |
| Diastolic blood pressure (per 1 mmHg) | 0.99 | 0.98-1.00 | 0.109\* |  |  |
| **Laboratory parameters** |  |  |  |  |  |
| Haemoglobin (per 1 g/dL) | 0.88 | 0.84-0.93 |  <0.001\* |  |  |
| eGFR (per 1 mL/min) | 0.99 | 0.99-1.00 |  <0.001\* | x | x |
| Creatinine (per 1mg/dL) | 1.21 | 0.86-1.69 | 0.277 |  |  |
| CRP (per 1 ln(CRP in mg/L) increase) | 1.37 | 1.27-1.48 |  <0.001\* | x | x |
| **Secondary diagnoses** |  |  |  |  |  |
| Arterial hypertension (yes vs. no) | 1.15 | 0.91-1.45 | 0.250 |  |  |
| Diabetes mellitus type II (yes vs. no) | 1.20 | 0.87-1.66 | 0.275 |  |  |
| Hypercholesterolemia (yes vs. no) | 1.03 | 0.80-1.33 | 0.801 |  |  |
| Previous stroke (yes vs. no) | 0.67 | 0.30-1.51 | 0.338 |  |  |
| **Medications on examination day** |  |  |  |  |  |
| ACE-I/ARBs (yes vs. no) | 0.96 | 0.73-1.25 | 0.748 |  |  |
| Beta-blockers (yes vs. no) | 1.22 | 0.92-1.63 | 0.167\* |  |  |
| Diuretics (yes vs no) | 1.46 | 1.10-1.94 | 0.009\* |  |  |
| Opioids (yes vs. no) | 2.33 | 1.82-2.99 |  <0.001\* |  |  |
| Antidepressants (yes vs. no) | 1.58 | 1.15-2.17 | 0.005\* |  |  |
| Steroids (yes vs. no) | 0.93 | 0.72-1.20 | 0.590 |  |  |

\*Variables with p-value < 0.2 are included in the baseline model within the framework of the survival-model building process with backward and forward elimination. CRP, C-reactive protein; ECOG, Performance Status Scale of the Eastern Cooperative Oncology Group (ECOG); eGFR, estimated glomerular filtration rate; hs Troponin T, high-sensitivity troponin T; MR-proADM, Mid regional pro-adrenomedullin; MR-proANP, Midregional pro-atrial natriuretic peptide; NT-pro BNP, N-terminal prohormone of brain natriuretic peptide.

**Supplementary Table 3: Echo characteristics of patients with cancer and MR-proADM <0.94 nmol/l and >0.94 nmol/l**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Patients with cancer and MR-proADM <0.94 nmol/ln=257 | Patients with cancer and MR-proADM >0.94 nmol/ln=185 | p-value |
| Left Ventricular Ejection Fraction, LVEF (%) | 63±5 | 64±5 | 0.549 |
| Left Ventricular End Diastolic Volume (ml) | 89±27 | 84±26 | 0.770 |
| Interventricular Septal End Diastole, IVSd (mm) | 10.5±1.7 | 10.7±1.8 | 0.220 |
| Left Ventricular Internal Diameter End Diastole, LVIDd (mm) | 45±5 | 45±5 | 0.617 |
| Left Ventricular Inferolateral Wall End Diastole, LVPWd (mm) | 9.4±1.3 | 9.7±1.4 | 0.270 |
| Left Atrial Volume, LAVol (ml) | 43±12 | 44±14 | 0.435 |
| Mitral E/A Ratio | 1.04±0.35 | 0.96±0.32 | **0.018** |
| Mitral E/E’ septal | 9.0±2.8 | 9.7±3.1 | **0.019** |
| Mitral E/E’ lateral | 7.0±2.6 | 7.9±3.0 | **0.003** |
| Mitral E/E’ mean | 7.7±2.5 | 8.6±2.6 | **0.001** |
| Tricuspid Annulus Plane Systolic Excursion, TAPSE (mm) | 25±3 | 24±4 | 0.422 |
| RV S’ (cm/s) | 13.0±4.1 | 11.7±6.2 | **0.035** |
| Right atrial volume, RAVol (ml) | 33±11 | 33±12 | 0.220 |
| Tricuspid Regurgitation Velocity, TR Vmax (m/s) | 2.37±0.31 | 2.53±0.92 | **0.011** |
| TR PGmax (mmHg) | 22.9±6.3 | 24.9±8.8 | **0.016** |
| Systolic Pulmonary Artery Pressure, sPAP (mmHg) | 27.8±6.3 | 29.5±8.9 | **0.037** |

Normal distributed variables are presented as means ± SD, non-normal distributed variables as median [interquartile range]. Bold p-values when p<0.05.