

Additional file 2: Comparison of patient characteristics according to direct ICU admission

| | Direct ICU admission from the ED | |
|---|----------------------------------|---------------|
| | No (n=742) | Yes (n=266) |
| Age > 60 years, n (%) | 346 (46.6) | 145 (54.5) |
| Female gender, n (%) | 291 (39.2) | 105 (39.5) |
| Underlying malignancy, n (%) | | |
| ALL - AML | 284 (38.3) | 63 (23.7) |
| CLL - CML - MDS | 85 (11.5) | 55 (20.7) |
| Lymphoma - Hodgkin's disease | 246 (33.2) | 98 (36.8) |
| Myeloma | 90 (12.1) | 36 (13.5) |
| Other | 37 (5.0) | 14 (5.3) |
| Disease status, n (%) | | |
| Remission or newly diagnosed | 468 (66.4) | 146 (58.6) |
| Other | 237 (33.6) | 103 (41.4) |
| Days since diagnosis, median [IQR] | 139 [9-760] | 290 [1-1,651] |
| Allogeneic BMT/HSCT recipient, n (%) | 121 (16.4) | 25 (9.4) |
| Long course corticosteroids, n (%) | 287 (38.9) | 94 (35.5) |
| Charlson comorbidity index, median [IQR] | 4 [3-5] | 4 [3-6] |
| Poor PS (> 2), n (%) | 164 (22.2) | 34 (12.9) |
| Reason for ICU admission, n (%) | | |
| Sepsis or septic shock | 170 (24.3) | 85 (33.7) |
| Acute respiratory failure | 295 (42.1) | 79 (31.3) |
| Coma | 53 (7.6) | 16 (6.3) |
| Metabolic disorder or acute kidney injury | 75 (10.7) | 36 (14.3) |

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|----------------------------------|------------|------------|
| Other | 108 (15.4) | 36 (14.3) |
| SOFA score, median [IQR] | 6 [3-9] | 6 [3-8] |
| Ventilation, n (%) | 460 (62.0) | 147 (55.3) |
| Mechanical ventilation | 363 (48.9) | 117 (44.0) |
| Non invasive ventilation | 237 (31.9) | 65 (24.4) |
| Amine use, n (%) | 387 (52.2) | 121 (45.5) |
| Renal replacement therapy, n (%) | 205 (27.6) | 66 (24.8) |
| Dialysis | 111 (15.0) | 40 (15.0) |
| CVVH | 114 (15.4) | 32 (12.0) |

ALL acute lymphocytic leukemia, *AML* acute myeloid leukemia, *BMT* bone marrow transplantation, *CLL* chronic lymphocytic leukemia, *CML* chronic myeloid leukemia, *CVVH* continuous veno-venous hemofiltration, *ED* emergency department, *HSCT* hematopoietic stem-cell transplantation, *ICU* intensive care unit, *IQR* interquartile range, *MDS* myelodysplastic syndrome, *PS* performance status, *SOFA* Sequential Related Organ Failure Assessment