**Supplemental digital content 3.** Predictability of adverse events, ICU readmission and death by ICU physician, ward physician and patient characteristics

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| **Outcome** |  | **ICU prediction2** | **Ward prediction2** | **Charlson comorbidity index + APACHE II score at transfer+age+sex** | **ICU prediction vs Ward prediction p-value** | **ICU prediction vs patient variables p-value** | **Ward prediction vs patient variables p-value** |
| **Adverse Event** | AUC | 0.59 (0.52-0.66) | 0.62 (0.53-0.71) | 0.68 (0.61-0.74) | 0.63 | 0.06 | 0.29 |
|  | Sensitivity1 | 0.70 (0.57-0.81) | 0.62 (0.45-0.78) | 0.65 (0.54-0.75) |  |  |  |
|  | Specificity1 | 0.43 (0.37-0.49) | 0.55 (0.48-0.63) | 0.64 (0.59-0.69) |  |  |  |
| **ICU readmission** | AUC | 0.69 (0.57-0.82) | 0.77 (0.66-0.88) | 0.65 (0.54-0.76) | 0.40 | 0.63 | 0.15 |
|  | Sensitivity1 | 0.67 (0.43-0.85) | 0.36 (0.11-0.69) | 0.69 (0.48-0.86) |  |  |  |
|  | Specificity1 | 0.58 (0.53-0.64) | 0.83 (0.76-0.89) | 0.69 (0.64-0.73) |  |  |  |
| **Hospital Death** | AUC | 0.59 (0.48-0.69) | 0.65 (0.49-0.81) | 0.77 (0.67-0.87) | 0.51 | 0.01 | 0.22 |
|  | Sensitivity1 | 0.28 (0.10-0.53) | 0.40 (0.12-0.74) | 0.67 (0.43-0.85) |  |  |  |
|  | Specificity1 | 0.90 (0.86-0.93) | 0.91 (0.85-0.94) | 0.69 (0.64-0.73) |  |  |  |

1Based on a cut-off minimizing the difference between sensitivity and specificity

2Based on 5 category physician prediction for adverse events and ICU readmission and a binary physician prediction due to small number of hospital deaths (Very High/Somewhat High vs Neither High nor Low/Somewhat Low/Very Low)

N=358 for ICU physician prediction of adverse event

N=353 for ICU physician prediction of ICU readmission

N=345 for ICU physician prediction of hospital death

N=203 for Ward physician prediction of adverse event

N=200 for Ward physician prediction of ICU readmission and hospital death

N=450 for patient characteristics (1 patient missing APACHE II score at transfer)