ADDITIONAL FILE 3

Day-to-day progression of vital-sign circadian rhythms in the intensive care unit

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Diagnoses and medication

Figs. 1 - 3 show the 20 most common ICD-9 (MIMIC-III and eICU-CRD) or ICRNARC (PICRAM) codes in the combined SRV and DCS patient cohort. The frequency of occurrence of these codes is represented as the % of patients in each of the SRV and DCS cohorts where a given ICD-9 or ICNARC code was present. Only the top 3 ICD-9 or ICNARC codes per patient were used, to minimise overlapping similar codes being repeatedly counted for a single patient. There are, as one might expect, some notable differences between the databases and between the SRV and DCS cohorts within each databases. However, there is a reasonable degree of overlap in ICD-9 and ICNARC codes between the SRV and DCS cohorts for a given database.

Figs. 4 - 6 show the 20 most common medications administered at least once during an ICU stay in the combined SRV and DCS cohorts in the MIMIC-III, eICU-CRD, and PICRAM databases, respectively. The frequency of occurrence of these medications is represented as the % of patients in each of the SRV and DCS cohorts where a given medication was administered at least once. There are some notable differences in mediation administered between databases, but in general the SRV and DCS cohorts for a given database had similar distributions of administered medication, with more medication administered to the DCS cohort.

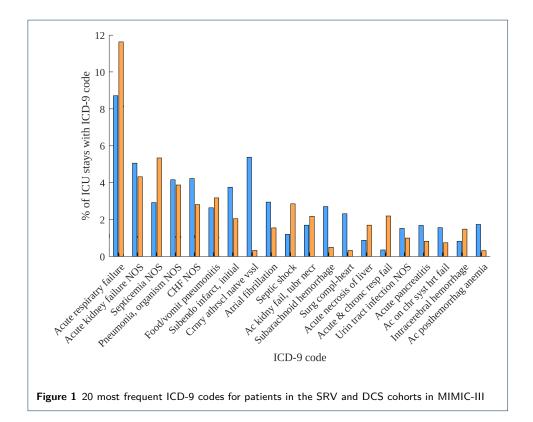
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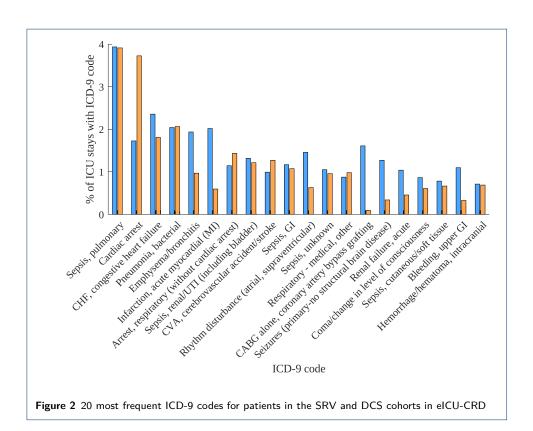
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References

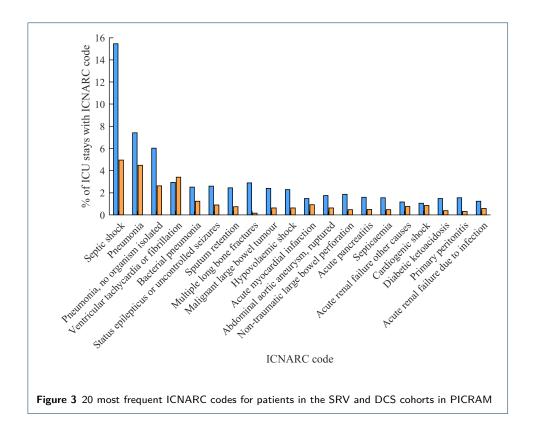
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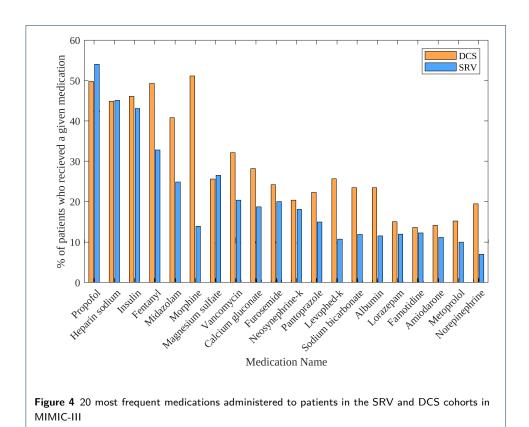
Davidson et al. Page 2 of 4



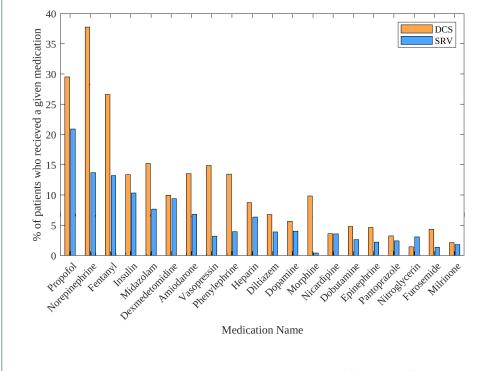


Davidson et al. Page 3 of 4

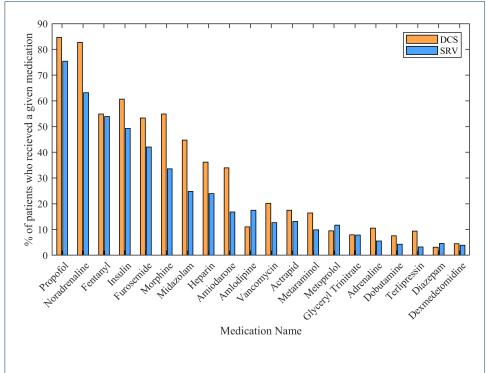




Davidson et al. Page 4 of 4



 $\textbf{Figure 5} \ \ \textbf{20} \ \ \textbf{most frequent medications administered to patients in the SRV and DCS cohorts in elCU-CRD}$



 $\textbf{Figure 6} \ \ \textbf{20} \ \ \text{most frequent medications administered to patients in the SRV and DCS cohorts in PICRAM }$