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The Impact of Increased Prescribing on ICU Survivors

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Intensive care unit (ICU) patients are regularly exposed to centrally acting medications (i.e., sedatives, analgesics, antipsychotics, anticholinergics) during their hospitalization to treat anxiety, pain, delirium, insomnia, and other disorders. These medications are frequently continued past their acute indication and upon hospital discharge. The burden of these medications can be quantified using the validated, evidence-based Drug Burden Index (DBI) tool that incorporates medication prescription and dosage to calculate patients' cumulative sedative and anticholinergic exposure – both independently associated with clinically significant in-hospital and outpatient outcomes. In specialized ICU and out-patient settings, increased DBI is associated with worse patient outcomes, however this tool has not yet been studied within the general ICU population. The Impact of Increased Prescribing on ICU Survivors (IMPAIRS) Study will seek to identify the impact of increased DBI, and specific drug class burden, on long-term outcomes among ICU survivors. We will test hypotheses that increased medication burden is associated with increased mortality, cognitive impairment, and physical disability following ICU survival. Investigating the impact of increased medication burden on long-term outcomes will fill an important knowledge gap and provide meaningful targets for future investigations aimed at improving survivorship following critical illness.