

## APPROACHES TO MAXIMIZING THE POTENTIAL FOR RECOVERY IN THE ACUTE CARE PHASE

Topic	Intervention	Implication
<b>Medication management</b> Certain classes of drugs (ie, anticholinergics, sedative/hypnotics, opioid analgesics, anticonvulsants) may impair neurorecovery; use of others (ie, serotonergic agents) may facilitate recovery. <sup>10</sup>	When feasible, avoid medications that may impair neuroplasticity and functional recovery. <sup>11</sup> Consider initiating medications beneficial to recovery process. <sup>12</sup> Educate patients on safe and sustainable medication use.	Promote neurorecovery, minimize adverse and side effects; promote safety, independence and self-sufficiency for patient and caregivers after discharge.
<b>Nutritional Status</b> Malnutrition is common in patients with stroke, and dysphagia contributes to malnutrition risk that is associated with extended hospital stay, poorer functional outcome, and increased mortality rates 3-6 months after stroke. <sup>13</sup>	Early nutrition/dietary consultation to evaluate and treat malnutrition. Early dysphagia screening to evaluate risk for aspiration, and enteral nutrition through a nasogastric tube, when risk persists for more than 48 to 72 hours. <sup>14</sup> Screening: thiamine (B1), pyridoxine (B6), folate (B9), cyanocobalamin (B12), and vitamin D levels. <sup>15</sup>	Prevention of complications resulting from energy-protein deficit. <sup>6,16</sup> Facilitation of myelin synthesis, optimizing neural functioning. <sup>15</sup> Promotes vascular health via reduction of serum homocysteine levels. <sup>17</sup>
<b>Insomnia</b> Adequate sleep is vital for neural recovery, energy, and focus and insomnia may be premorbid or secondary to the stroke. Associated with worse recovery outcomes. <sup>18</sup>	Early implementation of a sleep log and treatment appropriate pharmacotherapeutics (eg, melatonin, trazodone, mirtazapine). <sup>7</sup> When feasible, avoid use of antipsychotics, anticholinergics, benzodiazepine, opioid analgesics or zolpidem, which may impair cognition, reduce and/or reverse neuroplasticity. <sup>19</sup>	Early screening and treatment of insomnia may enhance neuronal plasticity, enhance spontaneous neurobiological recovery, and improve motivation and participation in therapy. <sup>5</sup>
<b>Obstructive Sleep Apnea</b> A common premorbid or acquired sleep disorder in stroke patients. Associated with decreased recovery and increased risk of recurrent stroke and mortality. <sup>20</sup>	Overnight oximetry may help identify patients at risk by alerting nocturnal apneic or hypoxemic events. <sup>8</sup>	Early screening and treatment of hypoxemic events and apnea facilitates adequate cerebral oxygenation, and improves sleep quality, alertness and focus during therapy. <sup>8</sup>
<b>Delirium</b> Post stroke delirium is associated with higher mortality, prolonged hospitalizations, and poor functional outcome. <sup>21</sup>	Early screening and treatment, particularly in patients with predisposing factors such as old age, dementia, visual impairment, history of excessive alcohol use, polypharmacy, malnutrition, renal impairment, and dehydration. <sup>22</sup>	Early recognition and prevention of delirium may improve outcomes in stroke patients. <sup>21</sup>
<b>Depression/Mood Disorders</b> Premorbid clinical depression and other mood and adjustment disorders may be exacerbated or worsen, after a stroke—with adverse effects on cognitive recovery, physical recovery, and mortality. <sup>23</sup>	Early screening for mood, adjustment disorders, and apathy (Nine-item Patient Health Questionnaire [PHQ9], or 15-item Geriatric Depression Scale [GD-15]). Discuss initiation of an antidepressant, or neurostimulant (dopaminergic or cholinergic agents). <sup>24-26</sup>	Early effective treatment of depression and mood disorder may improve motivation and positively influence rehabilitation outcome of stroke patients. <sup>27</sup>