Table 15k. Antiretroviral-Therapy-Associated Adverse Effects and Management Recommendations—Peripheral Nervous System Toxicity  (Last updated May 22, 2018; last reviewed May 22, 2018)

<table>
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<th>Adverse Effects</th>
<th>Associated ARVs</th>
<th>Onset/Clinical Manifestations</th>
<th>Estimated Frequency&lt;sup&gt;a&lt;/sup&gt;</th>
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</table>
| ARV Toxic Neuropathy<sup>b</sup> | d4T, ddI | Onset:  
• Weeks to months  
Presentation:  
• Decreased sensation  
• Aching, burning, painful numbness  
• Hyperalgesia  
• Allodynia  
• Decreased or absent ankle reflexes  
Distribution:  
• Bilateral soles of feet, ascending to legs and fingertips | Children:  
• Around 1% overall  
• 10% to 25% in children taking d4T  
Adults:  
• Up to 50% in adults taking d4T | • Pre-existing neuropathy  
• Elevated triglyceride levels  
• Poor nutrition  
• More advanced HIV disease  
• Concomitant use of other neurotoxic agents (e.g., INH)  
• Some mitochondrial DNA haplogroups may have increased risk. | Do not use d4T, ddI, or IDV. Co-administration of ddI and d4T is contraindicated (no exceptions).  
Monitor for symptoms and signs of peripheral neuropathy. | Investigate potential causes, including non-ARV medications and nutritional deficiencies.  
Discontinue offending agent.  
Topical capsaicin 8% may be helpful.  
Consider referral to a neurologist.  
Data are insufficient to allow the Panel to recommend use of any of the following modalities: tricyclic antidepressants, gabapentin, pregabalin, mexiletine, lamotrigine, and acupuncture or other complementary approaches. |

<sup>a</sup> Peripheral neuropathy may be underreported in children because symptoms are difficult to evaluate in young children.

<sup>b</sup> HIV infection itself may cause a distal sensory neuropathy that is phenotypically identical to ARV toxic neuropathy.

Key to Acronyms:  
ARV = antiretroviral; d4T = stavudine; ddI = didanosine; IDV = indinavir; INH = isoniazid; PI = protease inhibitor; the Panel = The Panel on Antiretroviral Therapy and Medical Management of Children Living with HIV

References


Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection


