### TABLE 9. Antiretroviral anti-infective drug combinations that should be avoided

<table>
<thead>
<tr>
<th>First drug</th>
<th>Second drug</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ribavirin</td>
<td>Didanosine</td>
<td>Increased intracellular levels of ddA-TP, increase inddl-associated mitochondrial toxicities (e.g., lactic acidosis, pancreatitis, and peripheral neuropathy)</td>
</tr>
<tr>
<td>Rifabutin</td>
<td>Atovaquone</td>
<td>Atovaquone concentration (conc.) decreased 34%; rifabutin conc. decreased 19%</td>
</tr>
<tr>
<td></td>
<td>Delavirdine</td>
<td>Delavirdine area under the concentration curve (AUC) decreased 90%; rifabutin AUC increased 100%</td>
</tr>
<tr>
<td></td>
<td>Itraconazole</td>
<td>Itraconazole conc. decreased 70%; potential for inhibition of rifabutin metabolism and increased rifabutin conc.</td>
</tr>
<tr>
<td></td>
<td>Saquinavir (as sole protease inhibitor)</td>
<td>Saquinavir AUC decreased 43%; if used, consider addition of ritonavir and/or monitor saquinavir concentration; no change in rifabutin conc.</td>
</tr>
<tr>
<td></td>
<td>Voriconazole</td>
<td>Voriconazole AUC decreased 79%; rifabutin AUC increased three-fold</td>
</tr>
<tr>
<td>Rifampin</td>
<td>Amprenavir</td>
<td>Amprenavir AUC decreased 82%, minimum concentration (Cmin) decreased 92%; no change in rifampin conc.</td>
</tr>
<tr>
<td></td>
<td>Atazanavir</td>
<td>Pharmacokinetic study not available; expect rifampin to decrease atazanavir concentrations substantially (up to 90%), as seen with other protease inhibitors</td>
</tr>
<tr>
<td></td>
<td>Atovaquone</td>
<td>Atovaquone conc. decreased 52%; rifampin conc. increased 37%</td>
</tr>
<tr>
<td></td>
<td>Clarithromycin</td>
<td>Decreased mean clarithromycin conc. 87%</td>
</tr>
<tr>
<td></td>
<td>Delavirdine</td>
<td>Delavirdine AUC decreased 95%; no change in rifampin conc.</td>
</tr>
<tr>
<td></td>
<td>Fosamprenavir</td>
<td>No study done with fosamprenavir; amprenavir AUC decreased 82%; Cmin decreased 92%</td>
</tr>
<tr>
<td></td>
<td>Indinavir</td>
<td>Indinavir AUC decreased 89%; rifampin conc. slightly increased</td>
</tr>
<tr>
<td></td>
<td>Itraconazole</td>
<td>Itraconazole AUC decreased 64%–88%; no change in rifampin conc.</td>
</tr>
<tr>
<td></td>
<td>Ketoconazole</td>
<td>Ketoconazole levels decreased 50%; rifampin maximum concentration (Cmax) decreased 40%–50% probably because of impaired rifampin oral absorption</td>
</tr>
<tr>
<td></td>
<td>Lopinavir/ritonavir</td>
<td>Lopinavir AUC decreased 75% and Cmin decreased 99%; rifampin AUC might be increased</td>
</tr>
<tr>
<td></td>
<td>Nelfinavir</td>
<td>Nelfinavir AUC decreased 82%; no change in rifampin conc.</td>
</tr>
<tr>
<td></td>
<td>Nevirapine</td>
<td>Nevirapine Cmax and AUC decreased 50%; no change in rifampin concentration</td>
</tr>
<tr>
<td></td>
<td>Saquinavir (as sole PI)</td>
<td>Saquinavir AUC decreased 82%; no change in rifampin concentration</td>
</tr>
<tr>
<td></td>
<td>Voriconazole</td>
<td>Voriconazole AUC decreased 96%</td>
</tr>
<tr>
<td>Voriconazole</td>
<td>Efavirenz</td>
<td>Voriconazole Cmax decreased 61%; AUC decreased 77%; efavirenz Cmax increased 38% and AUC increased 44%</td>
</tr>
<tr>
<td></td>
<td>Ritonavir 400 mg twice a day</td>
<td>Voriconazole Cmax decreased 66%; AUC decreased 82%</td>
</tr>
</tbody>
</table>