### TABLE E-1 Detailed Descriptions of Twenty Patients Who Had Electrophysical Changes*

<table>
<thead>
<tr>
<th>Case</th>
<th>Age (yr)</th>
<th>Diagnosis</th>
<th>Comorbidity</th>
<th>Operation</th>
<th>Identifiable Exposure</th>
<th>Taken Action</th>
<th>Recovery of Electrophysical Signals to Normal</th>
<th>Neurologic Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Permanent Drop in MEP and/or SSEP</td>
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</tr>
<tr>
<td>1</td>
<td>12</td>
<td>Kyphosis</td>
<td>Neuromuscular</td>
<td>PSF&amp;I: T1-S1</td>
<td>Direct cord trauma</td>
<td>Known mechanical event</td>
<td>No (SSEP improved)</td>
<td>Unchanged</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>Idiopathic</td>
<td>None</td>
<td>PSF&amp;I: T2-L3</td>
<td>Curve correction</td>
<td>Curve correction relaxed</td>
<td>No (SSEP improved)</td>
<td>Neurologic event†</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>Neurogenic</td>
<td>Neuromuscular, severe cerebral palsy</td>
<td>PSF&amp;I: T1-pelvis</td>
<td>Curve correction</td>
<td>Hypotension reversed</td>
<td>No</td>
<td>Unchanged</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>Kyphosis</td>
<td>Neuromuscular, severe cerebral palsy</td>
<td>PSF&amp;I: T3-sacrum, ASF: T5-T12</td>
<td>Curve correction</td>
<td>Hypotension reversed</td>
<td>No</td>
<td>Unchanged</td>
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<tr>
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<td></td>
<td></td>
<td>Transient Loss of MEP and SSEP</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>Idiopathic</td>
<td>Cardiopulmonary</td>
<td>PSF: T2-L3</td>
<td>Hypotension</td>
<td>Hypotension reversed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>Idiopathic</td>
<td>None</td>
<td>PSF&amp;I: T2-L4</td>
<td>Curve correction</td>
<td>Curve correction relaxed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>Transient Drop in MEP</td>
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<tr>
<td>7</td>
<td>12</td>
<td>Spondylolisthesis</td>
<td>Anatomic</td>
<td>PSF&amp;I: L4-L5</td>
<td>Pedicle-screw canal breach</td>
<td>Pedicle-screw correction</td>
<td>Yes</td>
<td>Neurologic event‡</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
<td>Neurogenic</td>
<td>Neuromuscular</td>
<td>PSF: T5-L3</td>
<td>Curve correction</td>
<td>Curve correction relaxed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>9</td>
<td>17</td>
<td>Congenital</td>
<td>Cardiopulmonary</td>
<td>PSF: T2-L3</td>
<td>Curve correction</td>
<td>Curve correction relaxed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>Congenital</td>
<td>Cardiopulmonary</td>
<td>PSF: T2-L3</td>
<td>Curve correction</td>
<td>Curve correction relaxed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Transient Loss of SSEP</td>
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<tr>
<td>11</td>
<td>14</td>
<td>Congenital</td>
<td>Cardiopulmonary</td>
<td>PSF: T2-pelvis</td>
<td>Curve correction</td>
<td>Blood pressure increased</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>Neurogenic</td>
<td>Cardiopulmonary</td>
<td>PSF: T1-pelvis</td>
<td>Hypotension</td>
<td>Hypotension reversed</td>
<td>Yes</td>
<td>Unchanged</td>
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<td>False-Positive Electrophysical Changes</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>16</td>
<td>Idiopathic</td>
<td>None</td>
<td>PSF: T5-L1</td>
<td>Technical error</td>
<td>Leads repositioned</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>Neurogenic</td>
<td>Neuromuscular</td>
<td>PSF&amp;I: T2-pelvis</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
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<td>Unchanged</td>
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<tr>
<td>15</td>
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<td>Congenital</td>
<td>Cardiopulmonary</td>
<td>Hemivert. resection, PSF&amp;I: T12-L2</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
<td>Yes</td>
<td>Unchanged</td>
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<tr>
<td>16</td>
<td>15</td>
<td>Kyphosis</td>
<td>None</td>
<td>Revision PSF&amp;I: T2-L3</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>17</td>
<td>10</td>
<td>Neurogenic</td>
<td>Cardiopulmonary</td>
<td>PSF: T2-L3</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
<td>Yes</td>
<td>Unchanged</td>
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<tr>
<td>18</td>
<td>13</td>
<td>Idiopathic</td>
<td>Cardiopulmonary</td>
<td>ASF: T8-L1, PSF: T3-L4</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
<tr>
<td>19</td>
<td>17</td>
<td>Idiopathic</td>
<td>None</td>
<td>ASF&amp;I: T11-L3</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
<td>Yes</td>
<td>Unchanged</td>
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<tr>
<td>20</td>
<td>14</td>
<td>Idiopathic</td>
<td>None</td>
<td>PSF: T1-L1</td>
<td>Paralytic agent</td>
<td>Paralytic agent reversed</td>
<td>Yes</td>
<td>Unchanged</td>
</tr>
</tbody>
</table>

*MEP = motor evoked potentials, SSEP = somatosensory evoked potentials, PSF = posterior spine fusion, I = instrumentation, and ASF = anterior spine fusion. †Left lower-limb weakness and sensory deficits immediately postoperatively. Normal findings on neurologic examination five days postoperatively. ‡L5 radiculopathy.