Maximum Blood Draw Protocol for Pediatric Patients

Purpose
This document outlines the maximum blood draw volumes allowed on pediatric patients for both inpatient and outpatient blood collections in a 24 hour time period.

Background
Pediatric patients have much smaller blood volumes than adults. Drawing too much blood from a pediatric patient may result in medically-induced blood transfusions (due to too much blood being removed as a result of phlebotomy) or harm to the patient, resulting in further medical intervention.

Protocol

<table>
<thead>
<tr>
<th>Weight (kgs)</th>
<th>Weight (Lbs)</th>
<th>Maximum Volume (mls) in 24 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 2.7</td>
<td>≤ 5</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>2.7-3.6</td>
<td>6-8</td>
<td>2.5</td>
</tr>
<tr>
<td>3.6-4.5</td>
<td>8-10</td>
<td>3.5</td>
</tr>
<tr>
<td>4.5-6.8</td>
<td>11-15</td>
<td>5</td>
</tr>
<tr>
<td>&gt;6.8</td>
<td>&gt;15</td>
<td>3 mls per kg or 1.5 mls per pound</td>
</tr>
</tbody>
</table>

Procedural Notes
1) A patient’s clinical condition may require that bloodwork be drawn at a volume that exceeds this protocol. If a request for blood collection is asked for that exceeds this protocol the phlebotomist must obtain permission from the patient’s physician or nurse to exceed the maximum recommended volume of blood draw:

<table>
<thead>
<tr>
<th>If…</th>
<th>Then…</th>
</tr>
</thead>
<tbody>
<tr>
<td>If permission is granted</td>
<td>• The phlebotomist must make a note on the requisition or trip list indicating the approval, including the physician/nurse’s name and the date and time.</td>
</tr>
</tbody>
</table>
| If permission is denied | • Determine from the physician which tests should be drawn at this time (if any).  
  • Collect only those tests, following the protocol above.  
  • For all other tests that were not collected, order and credit with CIA;Collection of blood specimens on this patient would exceed the maximum allowable volume for the patient based on weight per volume. Notification given to (physician/nurse’s name) by (tech code and initials) at (date and time of notification). |

References
3) Ernst, D. J. Applied Phlebotomy. Lippincott Williams & Wilkins. 2005