Appendix A: Chemotherapy Calculations

Body Surface Area (BSA)

<table>
<thead>
<tr>
<th>Author</th>
<th>BSA formula</th>
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<tbody>
<tr>
<td>Mosteller¹</td>
<td>( \text{BSA (m}^2) = \sqrt{\frac{\text{height (cm)} \times \text{weight (kg)}}{3600}} ) OR ( \text{BSA (m}^2) = \sqrt{\frac{\text{height (in)} \times \text{weight (lbs)}}{3131}} )</td>
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<tr>
<td>DuBois and DuBois²</td>
<td>( \text{BSA (m}^2) = \text{Weight (kg)}^{0.425} \times \text{Height (cm)}^{0.725} \times 0.007184 )</td>
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<tr>
<td>Haycock et al³</td>
<td>( \text{BSA (m}^2) = \text{Weight (kg)}^{0.5378} \times \text{Height (cm)}^{0.3964} \times 0.024265 )</td>
</tr>
<tr>
<td>Gehan and George⁴</td>
<td>( \text{BSA (m}^2) = \text{Weight (kg)}^{0.51456} \times \text{Height (cm)}^{0.42246} \times 0.02350 )</td>
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<tr>
<td>Boyd⁵</td>
<td>( \text{BSA (m}^2) = \text{Weight (kg)}^{0.4838} \times \text{Height (cm)}^{0.3} \times 0.017827 )</td>
</tr>
</tbody>
</table>

Cockcroft-Gault Equation⁶

\[
\text{CrCl (male; mL/min)} = \frac{(140 - \text{age}) \times \text{(weight in kg)}}{72 \times \text{serum creatinine (mg/dL)}}
\]

\[
\text{CrCl (female; mL/min)} = 0.85 \times \text{CrCl (male)}
\]

Calvert Equation⁷

\[
\text{Carboplatin Dose (mg)} = \text{Target area under the curve (AUC mg-min/mL)} \times (\text{GFR}^{*} + 25)
\]

*GFR estimated by calculated creatinine clearance using Cockcroft-Gault Equation (see above).

REFERENCES