Appendix

Body Surface Area of Neonates and Infants

A nomogram for body calculation of neonates is needed. The formula by Meban (BSA $m^2 = 6.4954 \times weight (g) \times 0.562 \times height (cm) 0.320$) is possibly the best to estimate the body surface of newborns, followed by the Mosteller ($\sqrt{[(height\ in\ cm \times weight\ in\ kg)/3,600]}$) formula; however, the Boyd and Dubois formulas are not recommended for surface estimation of newborns for treatment, due to either overestimation or underestimation. A study compared Meban, Moesteller, Boyd and Dubois formulas with a BSA-Mean (an arithmetic mean of these four formulas). The Meban formula is most similar to the BSA-Mean formula, with a mathematically perfect correlation and the least dissimilarity using Euclidean distance, followed by the Mosteller formula. The estimations by both Boyd and Dubois show about a 5% deviation above and below the BSA-Mean formula, respectively, with a consistent dissimilarity using Euclidean distance regardless of the same goodness of fit. The degree of deviation increases with weight and decreases with height [33].
## Acidity/Basicity of Chemotherapeutic Drugs

<table>
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<tr>
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<th>Acidity/basicity</th>
</tr>
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<tr>
<td>Alkylating drug (cyclophosphamide)</td>
<td>Weak acid [29]</td>
</tr>
<tr>
<td>Anthracycline drugs (daunorubicine, doxorubicin)</td>
<td>Weak bases [27, 29, 66]</td>
</tr>
<tr>
<td>Methotrexate</td>
<td>Weak acid [28]</td>
</tr>
<tr>
<td>Mitoxantrone</td>
<td>Weak base [66]</td>
</tr>
<tr>
<td>Platinum compounds (cisplatin, carboplatin)</td>
<td>Weak acids [29]</td>
</tr>
<tr>
<td>Vinka alkaloid drug (vincristine)</td>
<td>Weak base [27, 29]</td>
</tr>
</tbody>
</table>

Before any of these drugs are prescribed for young children, they should be verified by the pharmacist and physician with regard to the ideal dose, dilution, protocol, and other specifications for each age group.
References

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