

FLUID MANAGEMENT – THE HOLLIDAY SEGAR FORMULA¹

Weight	Daily requirement	Hourly requirement
0-10kg	100 ml/kg	4 ml/kg (~100/24)
11-20kg	1000 ml + 50 ml/kg for each kg over 10kg	40 ml + 2 ml/kg (~50/24) for each kg over 10kg
>20kg	1500 ml + 20 ml/kg for each kg over 20 kg	60 ml + 1 ml/kg (~20/24) for each kg over 20kg
Raychel's weight: 25kg²	$1500 + 5 \times 20 = 1600 \text{ ml} = \underline{\underline{66.6 \text{ ml/hr}}}$	$60 + 5 \times 1 = \underline{\underline{65 \text{ ml/hr}}}$
Actual pre-operative rate	80 ml/hr ³ (20% higher than Holliday Segar)	80 ml/hr (23% higher than Holliday Segar)
Post-operative reduction of 20% as per Mr. Foster ⁴	66.6 minus 20% = 53.3 ml/hr	65 minus 20% = 52 ml/hr
Actual post-operative rate	80 ml/hr ⁵ (50% higher than Mr. Foster's suggested rate)	80 ml/hr (54% higher than Mr. Foster's suggested rate)

¹ Holliday MA, Segar WE. Pediatrics 1957;19:823-832. The Maintenance need for water in parenteral fluid therapy The calculation can be found at Ref: 220-002-193. The original article can be found at Ref: 220-002-168.

² Ref: 020-006-010

³ Ref: 020-021-040

⁴ Ref: 223-002-013

⁵ Ref: 020-019-038