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Central Venous Tunneled Catheter Lengths and Volumes, 12377

Job Aid

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I. Central venous catheter volumes for standard (uncut) lines

Line Type & Lumens	French	Length	Priming volume	Priming volume	Priming volume
Broviac, Single Lumen	2.7 Fr	71 cm	0.15 mL	n/a	n/a
	4.2 Fr	71 cm	0.3 mL	n/a	n/a
	6.6 Fr	90 cm	0.7 mL	n/a	n/a
	6.6 Fr "short sheath"	90 cm	1.8 mL	n/a	n/a
Hickman, Single Lumen	9.6 Fr	90 cm	1.8 mL	n/a	n/a
Hickman, Dual Lumen	7 Fr	65 cm	white 0.6 mL	red 1.3 mL	n/a
	9 Fr	90 cm	white 0.6 mL	red 1.3 mL	n/a
	9 Fr "short sheath"	90 cm	white 0.6 mL	red 1.3 mL	n/a
	12 Fr	90 cm	white 1.8 mL	red 1.8 mL	n/a
Leonard, Dual Lumen	10 Fr	97 cm	white 1.3 mL	red 1.3 mL	n/a
Hickman, Triple Lumen	10 Fr	97 cm	white 0.8 mL	blue 0.8 mL	red 1.4 mL
	12.5 Fr	90 cm	white 0.7 mL	blue 0.7 mL	red 1.6 mL

II. Central venous catheter volumes for lines that have been cut to size

Volumes appearing in the table below are derived from this formula:

$$\text{Priming volume} = \text{Reduced length (cm)} \div \text{total length (cm)} \times \text{total length priming volume}$$

4.2 French Single Lumen Total length 71cm Length from tip to cuff 51 cm		
Length	Priming volume	Priming volume
49-71 cm	0.3 mL	n/a
25-48 cm	0.2 mL	n/a
< 24 cm	0.1 mL	n/a
6.6 French Single Lumen Total length 90cm Length from tip to cuff 55.9 cm		
Length	Priming volume	Priming volume
78-90 cm	0.7 mL	n/a
65-77 cm	0.6 mL	n/a
53-64 cm	0.5 mL	n/a
40-52 cm	0.4 mL	n/a
< 39 cm	0.3 mL	n/a
7 French Double Lumen Total length 65cm Length from tip to cuff 34 cm		
Length	Priming volume	Priming volume
61-65 cm	white 0.6 mL	red 1.3 mL
56-60 cm	white 0.6 mL	red 1.2 mL
51-55 cm	white 0.5 mL	red 1.1 mL
46-50 cm	white 0.5 mL	red 1 mL
44-45 cm	white 0.4 mL	red 0.9 mL
41-43 cm	white 0.4 mL	red 0.9 mL
36-40 cm	white 0.4 mL	red 0.8 mL
34-35 cm	white 0.4 mL	red 0.7 mL
< 33 cm	white 0.3 mL	red 0.7 mL
9.6 French Single Lumen Total length 90 cm Length from tip to cuff 55.9 cm		

Length	Priming volume	Priming volume
86-90 cm	1.8 mL	n/a
81-85 cm	1.7 mL	n/a
76-80 cm	1.6 mL	n/a
71-75 cm	1.5 mL	n/a
66-70 cm	1.4 mL	n/a
61-65 cm	1.3 mL	n/a
56-60 cm	1.2 mL	n/a
51-55 cm	1.1 mL	n/a
46-50 cm	1 mL	n/a
41-45 cm	0.9 mL	n/a
36-40 cm	0.8 mL	n/a
< 35 cm	0.7 mL	n/a
10 French Double Lumen Total length 90 cm Length from tip to cuff 54.6 cm		
Length	Priming volume	Priming volume
84-90 cm	white 1.3 mL	red 1.3 mL
77-83 cm	white 1.2 mL	red 1.2 mL
70-76 cm	white 1.1 mL	red 1.1 mL
63-69 cm	white 1 mL	red 1 mL
56-62 cm	white 0.9 mL	red 0.9 mL
49-55 cm	white 0.8 mL	red 0.8 mL
42-48 cm	white 0.7 mL	red 0.7 mL
35-41 cm	white 0.6 mL	red 0.6 mL
< 34 cm	white 0.5 mL	red 0.5 mL
12 French Double Lumen Total length 90 cm Length from tip to cuff 54.6 cm		
Length	Priming volume	Priming volume
86-90 cm	white 1.8 mL	red 1.8 mL
81-85 cm	white 1.7 mL	red 1.7 mL
76-80 cm	white 1.6 mL	red 1.6 mL
71-75 cm	white 1.5 mL	red 1.5 mL
66-70 cm	white 1.4 mL	red 1.4 mL
61-65 cm	white 1.3 mL	red 1.3 mL
56-60 cm	white 1.2 mL	red 1.2 mL
51-55 cm	white 1.1 mL	red 1.1 mL

46-50 cm	white 1 mL	red 1 mL
41-45 cm	white 0.9 mL	red 0.9 mL
36-40 cm	white 0.8 mL	red 0.8 mL
< 35 cm	white 0.7 mL	red 0.7 mL

III. Power Hickman catheter volumes for standard (uncut) lines

Volumes appearing in table below are derived from this formula:

$$\text{Priming volume} = \text{Reduced length (cm)} \div \text{total length (cm)} \times \text{total length priming volume}$$

6 French		
Double Lumen		
Total length: 50 cm		
Length	Priming volume	Priming volume
42-50 cm	purple 0.6 mL	red 0.6 mL
33-41 cm	purple 0.5 mL	red 0.5 mL
24-32 cm	purple 0.4 mL	red 0.4 mL
16-23 cm	purple 0.3 mL	red 0.3 mL
< 15 cm	purple 0.2 mL	red 0.2 mL
9.5 French		
Double Lumen		
Total length: 47 cm		
Length	Priming volume	Priming volume
44-47 cm	purple 1.3 mL	red 1.3 mL
41-43 cm	purple 1.2 mL	red 1.2 mL
37-40 cm	purple 1.1 mL	red 1.1 mL
34-36 cm	purple 1 mL	red 1 mL
30-33 cm	purple 0.9 mL	red 0.9 mL
26-29 cm	purple 0.8 mL	red 0.8 mL
23-25 cm	purple 0.7 mL	red 0.7 mL
19-22 cm	purple 0.6 mL	red 0.6 mL
15-18 cm	purple 0.5 mL	red 0.5 mL
12-14 cm	purple 0.4 mL	red 0.4 mL
8-11 cm	purple 0.3 mL	red 0.3 mL
<8 cm	purple 0.2 mL	red 0.2 mL

IV. Port-a-Cath

Lumen Size	Priming Volume
5 Fr.	1 mL
6.5 Fr	1.5 mL
9.5 Fr	2.5 mL

Additional Resources

- Clinical P&P: [Antibiotic Locks for Central Lines](#)
- Clinical P&P: [Central Venous Line Occlusion Treatment](#)
- Clinical P&P: [Ethanol Locks for Central Lines](#)
- Clinical P&P: [IV Line Maintenance](#)

Attachments:

No Attachments

Approval Signatures

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