Florida Department of Health
Resource Typing
SpNS - Shelter Oxygen Packs

<table>
<tr><th colspan="6">Resource: Special Needs Shelter Oxygen Packs</th></tr>
<tr><td colspan="6">Category: Health & Medical
Kind: Equipment
Mission: Special Needs Shelter oxygen re-supply</td></tr>
<tr><th>Minimum Capabilities (Component)</th><th>Minimum Capabilities (Metric)</th><th>Type I</th><th>Type II</th><th>Type III</th><th>Type IV</th></tr>
<tr><td>Equipment</td><td>Ω Patient Care Capabilities = 30 clients @ 3 liters per minute</td><td>72 hours</td><td>36 hours</td><td>24 hours</td><td>12 hours</td></tr>
<tr><td>Personnel & Equipment Readiness</td><td>Roster Fulfillment, Equipment Loading</td><td>Upon request, on site in shelter within 12 hours</td><td>Upon request, on site in shelter within 12 hours</td><td>Upon request, on site in shelter within 12 hours</td><td>Upon request, on site in shelter within 12 hours</td></tr>
<tr><td>Equipment & Supplies</td><td>Logistics Pack Δ</td><td><table><tr><td>Tank</td><td>Tanks Needed</td></tr><tr><td>D</td><td>1350 or</td></tr><tr><td>E</td><td>810 or</td></tr><tr><td>M</td><td>139 or</td></tr><tr><td>H (K)</td><td>69</td></tr></table>Plus one accessory pack*</td><td><table><tr><td>Tank</td><td>Tanks Needed</td></tr><tr><td>D</td><td>675 or</td></tr><tr><td>E</td><td>405 or</td></tr><tr><td>M</td><td>69 or</td></tr><tr><td>H (K)</td><td>35</td></tr></table>Plus one accessory pack*</td><td><table><tr><td>Tank</td><td>Tanks Needed</td></tr><tr><td>D</td><td>450 or</td></tr><tr><td>E</td><td>270 or</td></tr><tr><td>M</td><td>46 or</td></tr><tr><td>H (K)</td><td>23</td></tr></table>Plus one accessory pack*</td><td><table><tr><td>Tank</td><td>Tanks Needed</td></tr><tr><td>D</td><td>225 or</td></tr><tr><td>E</td><td>135 or</td></tr><tr><td>M</td><td>23 or</td></tr><tr><td>H (K)</td><td>12</td></tr></table>Plus one accessory pack*</td></tr>
<tr><td>Transportation §</td><td>Vehicle Status</td><td>Mode based on necessity and availability</td><td>Mode based on necessity and availability</td><td>Mode based on necessity and availability</td><td>Mode based on necessity and availability</td></tr>
</table>

Ω Historically, approximately 30% of Florida's Special Needs Shelter clients have been found to be on continuous or intermittent oxygen therapy. Florida Department of Health standard shelter resource typing uses a census of 100, hence the use of the 30 clients at 3 liters per minute

Δ Consideration should be given to including several small tanks in packs to be used for ambulation of clients to toilet facilities.

* Accessory pack includes 30 regulators (non flow meter type if possible), 30 nasal cannulas, 15 extension tubing (25'), and 20 tubing, connectors, 3 oxygen tank wrenches, 20 hazard signs (i.e.: No Smoking). Tank stands should also be included if available. Manifold systems can be used for larger tanks if available

§ Bulk oxygen packs must be transported by a licensed vendor

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Calculations

Tank	Cylinder Constant	Flow ‡	Duration †	Tanks Per Person Per day	Tanks Per 12 hours for 30 people	Tanks Per 24 hours for 30 people	Tanks Per 36 hours for 30 people	Tanks Per 48 hours for 30 people	Tanks Per 72 hours for 30 people
D	0.16	3 liters /min	1.6 hours {1° 36 minutes}	15	225	450	675	900	1350
E	0.28	3 liters /min	2.8 hours {2° 48 minutes}	9	135	270	405	540	810
M	1.56	3 liters /min	15.6 hours {15° 36 minutes}	1.54	23.1	46.2	69.3	92.4	138.6
H (K)	3.14	3 liters /min	31.4 hours {31° 24 minutes}	0.76	11.5	23	34.5	46	69

‡ Standard non conservation type regulator

† Tank Calculations (tank pressure – 200 {safe residual pressure} x cylinder constant divided by {/} liters per minute = tank life in Minutes / 60 = hours of oxygen remaining)

D: 2000 – 200 = 1800 x 0.16 = 288 / 3 = 96 (minutes) = 1.6 hours {1 hour, 36 minutes}

E: 2000 – 200 = 1800 x 0.28 = 504 / 3 = 168 (minutes) = 2.8 hours {2 hours, 48 minutes}

M: 2000 – 200 = 1800 x 1.56 = 2808 / 3 = 936 (minutes) = 15.6 hours {15 hours, 36 minutes)

G: 2000 - 200 = 1800 x 2.41 = 4338 / 3 = 1446 (minutes) = 24.1 hours {24 hours, 6 minutes}

H: 2000 – 200 = 1800 x 3.14 = 5652 / 3 = 1884 (minutes) = 31.4 hours {31 hours, 24 minutes}

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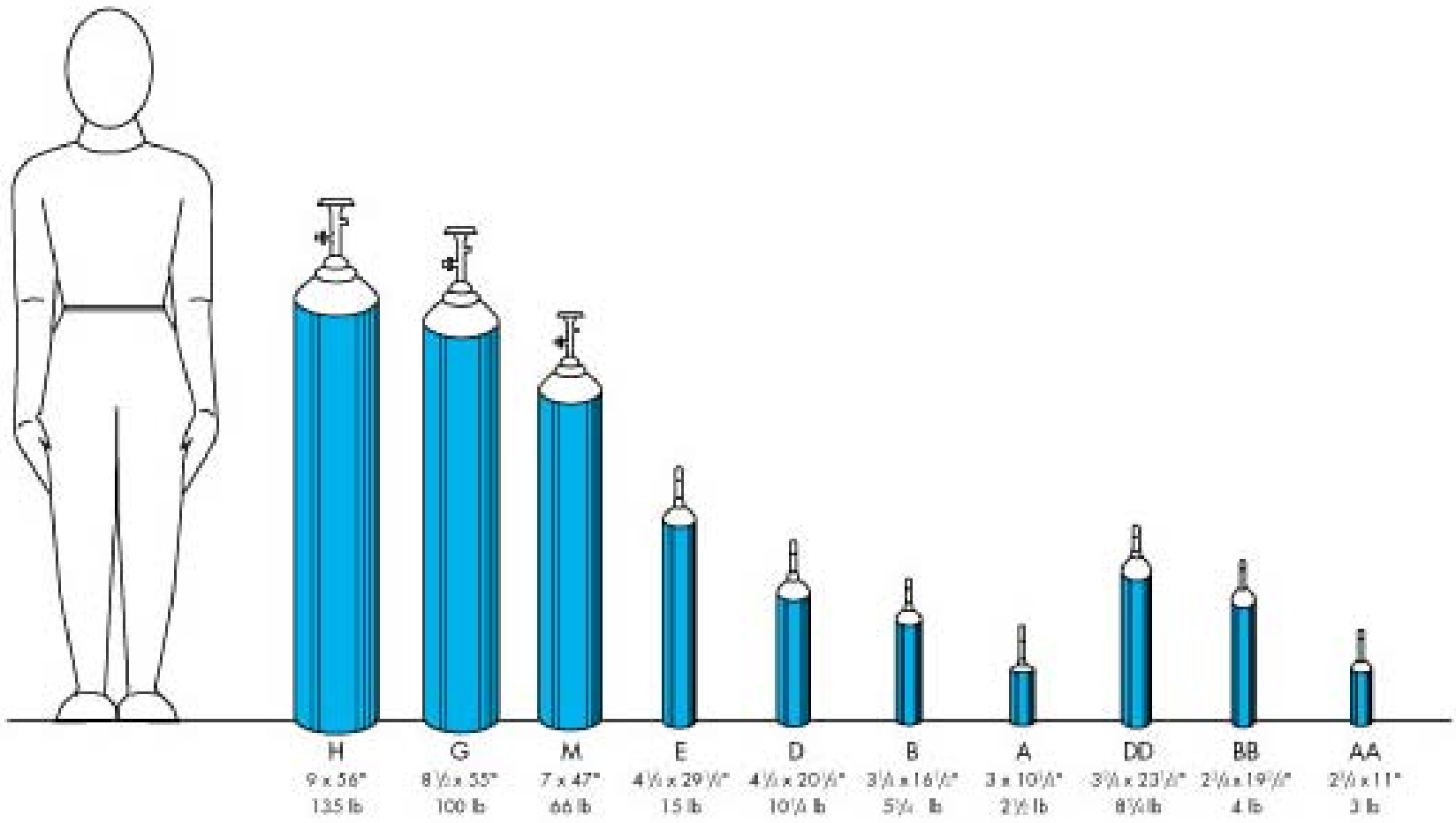

Figure 2-2 Various types of high-pressure cylinders used in medical gas therapy. (Modified from Barnes TA: Core textbook of respiratory care practice, ed 2, St Louis, 1994, Mosby.)