

17. Solution: D

Let

O = Event of operating room charges

E = Event of emergency room charges

Then

$$\begin{aligned} 0.85 &= \Pr(O \cup E) = \Pr(O) + \Pr(E) - \Pr(O \cap E) \\ &= \Pr(O) + \Pr(E) - \Pr(O)\Pr(E) \quad (\text{Independence}) \end{aligned}$$

Since $\Pr(E^c) = 0.25 = 1 - \Pr(E)$, it follows $\Pr(E) = 0.75$.

So $0.85 = \Pr(O) + 0.75 - \Pr(O)(0.75)$

$$\Pr(O)(1 - 0.75) = 0.10$$

$$\Pr(O) = 0.40$$