Exam P

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$$\Pr(\text{ultrapreferred} \mid \text{death})$$

$$\Pr(A \mid B) = \frac{\Pr(A \cap B)}{\Pr(B)}$$

$$\Pr(A \mid B) \cdot \Pr(B) = \Pr(A \cap B)$$

X	Pr(X)	Pr(death | X)	Pr(death ∩ X)
standard	0.5	0.010	0.5 × 0.01 = 0.005
Preferred	0.4	0.005	0.002
ultrapref.	0.1	0.001	0.0001
			0.0071

$$\Pr(\text{ultrapreferred} \mid \text{death}) = \frac{\Pr(\text{ultra} \cap \text{death})}{\Pr(\text{death})}$$

$$= \frac{0.0001}{0.0071} = 0.141$$

(D)