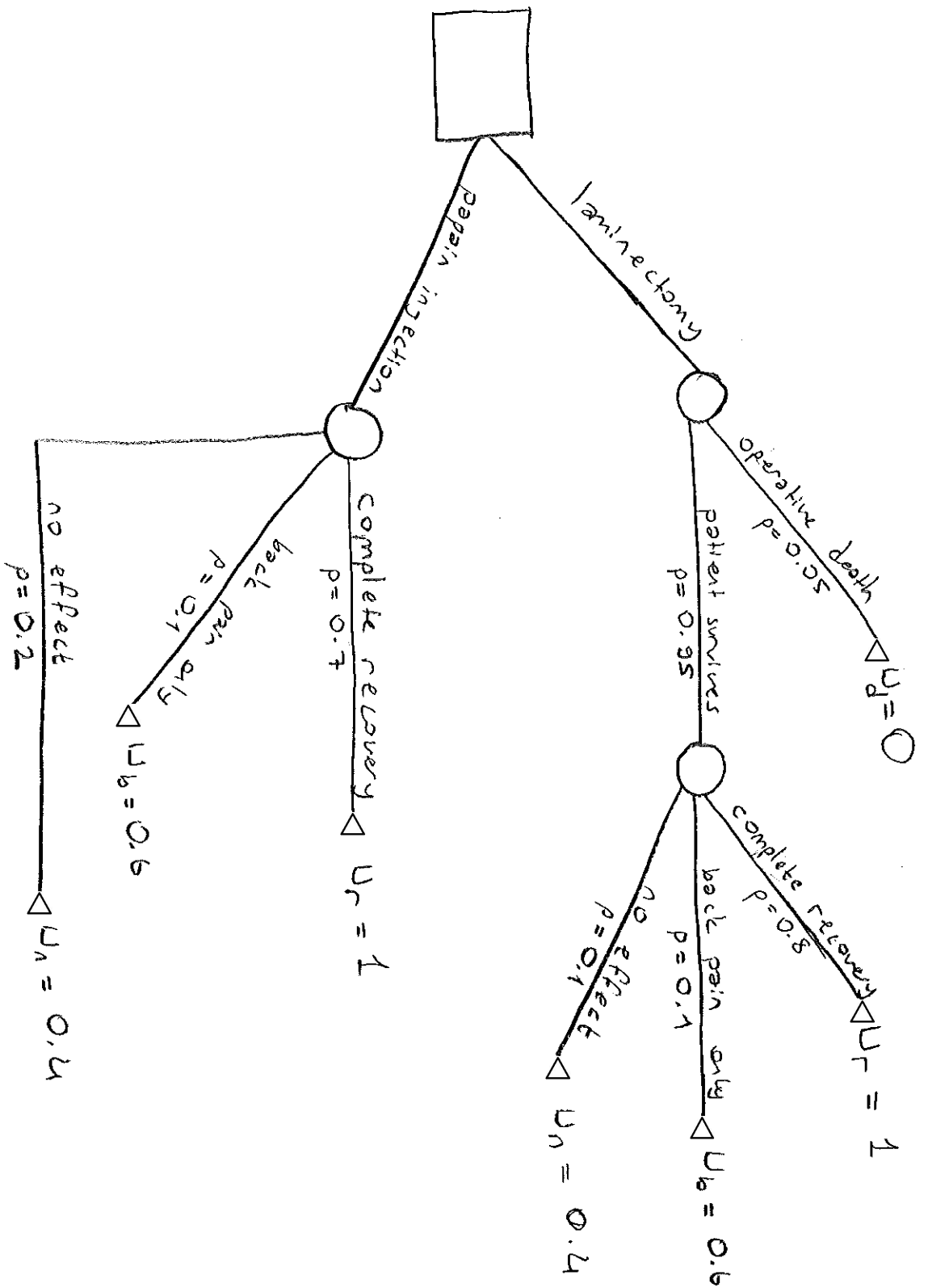




$$\begin{aligned}
 U_{\text{laminectomy}} &= (0.05) (U_d) + (0.95) [(0.8) U_r + (0.1) U_b + (0.1) U_n] \\
 &= 0.855 \\
 U_{\text{papain}} &= (0.7) U_r + (0.1) U_b + (0.2) U_n = 0.840
 \end{aligned}$$

One-way Sensitivity Analysis

- Say we want to observe how utility of each treatment method changes when the utility of lifetime of back pain and footdrop changes.
- So, $U_n = x$, we will change and see the effect of varying x .
- Write utility of each treatment as a function of x :

$$U_{\text{aminectomy}}(x) = (0.05)(U_b = 0) + (0.95) \left[(0.8)(U_r = 1) + (0.1)(U_b = 0.6) + (0.1)(U_n = x) \right]$$
$$= (0.817) + (0.095)x$$

$$U_{\text{pain}}(x) = (0.7)(U_r = 1) + (0.1)(U_b = 0.6) + (0.2)(U_n = x)$$
$$= (0.76) + (0.2)x$$