

550 **FIGURE LEGEND:**

551 **Supplemental Figure 1. Decision Analytic Model Flow:**

552 All patients enter the model following an indeterminate ultrasound and subsequently undergo  
553 diagnostic laparoscopy, CT scan, or MRI.

554 **Supplemental Figure 2. Markov Model of Childhood ALL:**

555 All surviving children enter the Markov model for childhood cancer. At any state within the model  
556 there exists the risk of non-cancer death.

557 **Supplemental Figure 3. Cost-Effectiveness Frontier, Base Case Analysis:**

558 Diagnostic laparoscopy, CT scan, and MRI all remain on the cost-effectiveness frontier. MRI  
559 costs \$6,599 per QALY gained relative to CT, while CT costs \$664 per QALY gained relative to  
560 diagnostic laparoscopy.

561 **Figure 1. CE of Imaging versus the Prevalence of Appendicitis:**

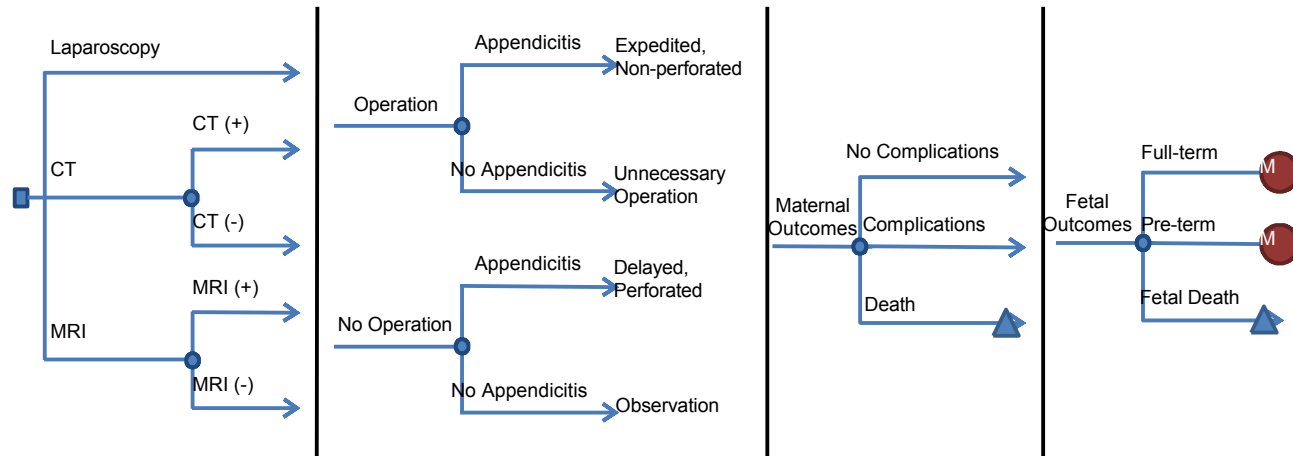
562 The pre-test probability, a surrogate for diagnostic certainty, must be greater than 99.5% prior to  
563 diagnostic laparoscopy becoming the most effective strategy at a willingness to pay of \$50,000  
564 per QALY.

565 **Supplemental Figure 4. Probabilistic Sensitivity Analysis:**

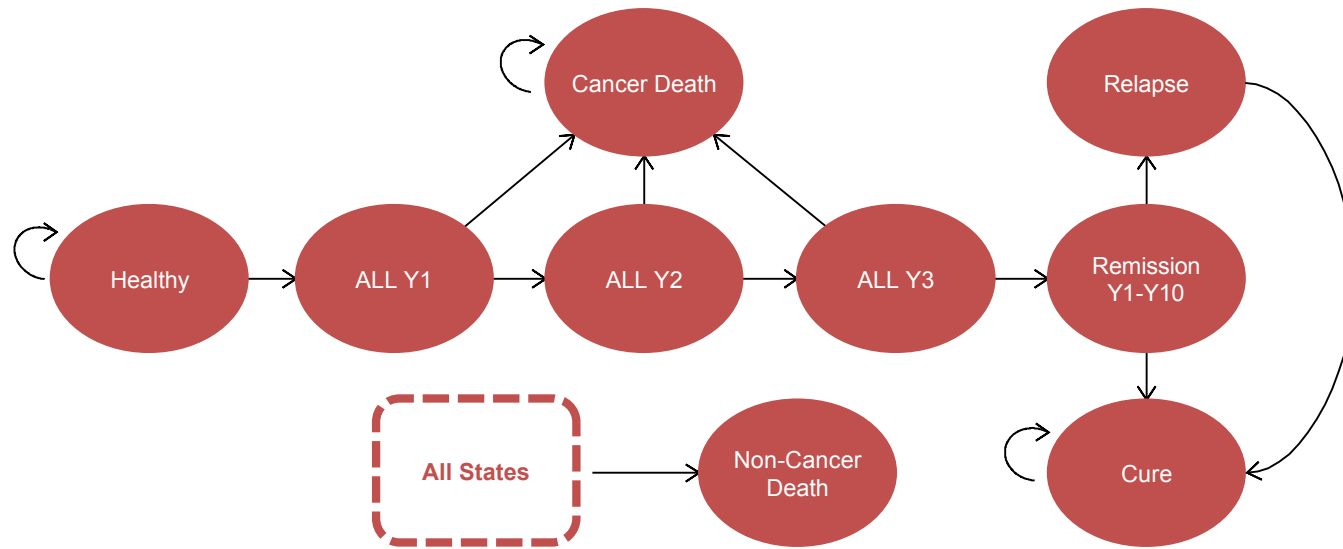
566 The probability of MRI being the most cost-effective strategy was 70% and 73% at willingness to  
567 pay of \$50,000 and \$100,000 per QALY gained, respectively.

568

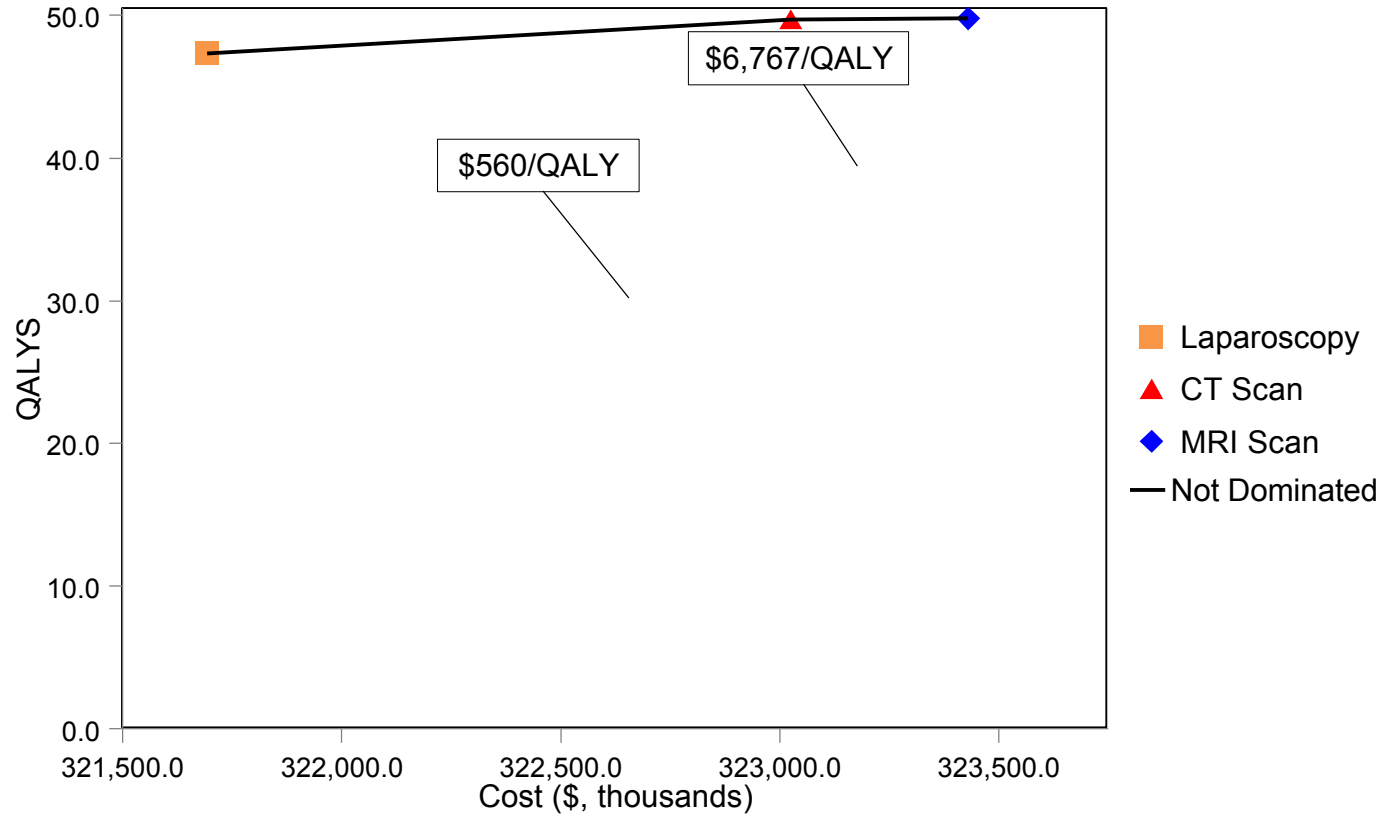
SUPPLEMENTAL FIGURE 1



SUPPLEMENTAL FIGURE 2



SUPPLEMENTAL FIGURE 3



SUPPLEMENTAL FIGURE 4

