

Supplementary File

Meta-analysis for sensitivity and specificity of blood test

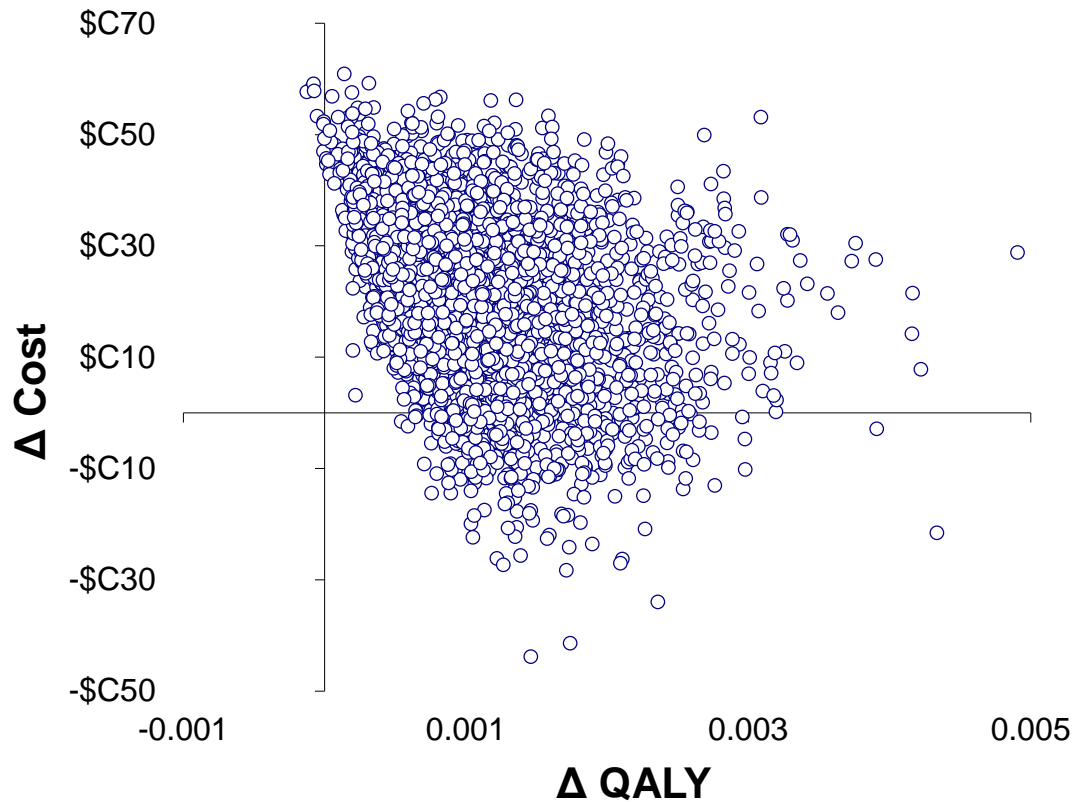
Jellema et al. conducted a high quality systematic review that summarized the evidence on the performance of different diagnostic tests including the blood tests (C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR)) in patients with abdominal symptoms.¹ They identified four studies that investigated the diagnostic performance of CRP or ESR with different diagnostic cut-off points. The gastroenterologists (Drs. Rosenfeld and Chavannes) in our study selected the studies and the cut-off points that are most relevant to the clinical practice.

Table 1. Diagnostic performance of studies with test cut-offs of CRP $\geq 5\text{mg/l}$ and ESR $\geq 15\text{mm/h}$

Study	True Positives	False Positives	True Negatives	False Negatives
Kaiser <i>et al</i> , 2007 ²	29	5	19	21
Poullis <i>et al</i> , 2002 ³	11	16	143	9
Shine <i>et al</i> , 1985 ⁴	32	9	32	9
The numbers were directly obtained from Jellema et al. ¹				

Subsequently, we have attempted to model these data using a bivariate analysis to take account of the correlation between the sensitivity and specificity based on Reitsma et al.⁵ (model specification shown on page 988). However, the estimated covariance matrix was not full rank and might be unreliable, possibly due to our small sample size (only 3 studies). Therefore, we estimated the sensitivity and specificity independently (i.e., without accounting for the correlation between the sensitivity and specificity). The logit estimates for sensitivity and specificity were 0.613 (SE=0.199) and 1.867 (0.196), respectively.

Cost-effectiveness plane for our base case



References

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3. Poullis AP, Zar S, Sundaram KK, et al. A new, highly sensitive assay for C-reactive protein can aid the differentiation of inflammatory bowel disorders from constipation- and

diarrhoea-predominant functional bowel disorders. *Eur J Gastroenterol Hepatol.* 2002;14:409–412.

4. Shine B, Berghouse L, Jones JE, et al. C-reactive protein as an aid in the differentiation of functional and inflammatory bowel disorders. *Clin. Chim. Acta.* 1985;148:105–109.
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