

The Authors Reply: “Cost and Utility of Thrombophilia Testing”

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We thank Dr. Berse and colleagues for their correspondence about our paper.^{1,2} We are pleased they agreed with our conclusion: Thrombophilia testing has limited clinical utility in most inpatient settings.

Berse and colleagues critiqued details of our methodology in calculating payer cost, including how we estimated the number of Medicare claims for thrombophilia testing. We estimated that there were at least 280,000 Medicare claims in 2014 using CodeMap® (Wheaton Partners, LLC, Schaumburg, IL), a dataset of utilization data from the Physician

Supplier Procedure Summary Master File from all Medicare Part B carriers.³ This estimate was similar to that reported in a previous publication.⁴

Berse and colleagues generated a lower cost estimate of \$405 for 11 of the 13 thrombophilia tests referenced in our paper (excluding factor V and methylenetetrahydrofolate reductase mutations) by using the average Medicare payment.² However, private insurance companies or self-paying patients often pay multiples of Medicare reimbursement. Our institutional data suggest that the average reimbursement across all payors not based on a diagnosis-related group for 12 of these 13 tests is \$1,327 (Table). Importantly, these expenses do not factor in costs related to increased premiums for health, disability, and life insurance that may occur due to an inappropriately ordered, positive thrombophilia test. Nor, for that matter, do they include the psychological stress of the patient that may result from a positive genetic test.

Thus, regardless of the precise estimates, even a conservative estimate of 33 to 80 million dollars of unnecessary spending is far too much. Rather, it is a perfect example of “Things We Do for No Reason.”

Disclosure: Nothing to report.

References

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TABLE. Charges and Reimbursement at Michigan Medicine for Thrombophilia Tests

| CPT Code | Test Name | Charge (\$) | Reimbursement (\$) |
|-----------|--|--------------------|--------------------|
| 81240 | F2 (Prothrombin, Coagulation Factor II) Gene Analysis | 654 | 218 |
| 81241 | Factor V (Leiden) Mutation (R506q) | 654 | 218 |
| 81291 | MTHFR (Methylenetetrahydrofolate Reductase) | 675 | 225 |
| 83090 | Homocysteine | 114 | 38 |
| 85300 | Antithrombin III Activity | 503 | 168 |
| 85303 | Protein C, Activity | 197 | 66 |
| 85306 | Protein S Antigen | 226 | 75 |
| 85307 | Activated Protein C Resistance | 156 | 52 |
| 85420 | Plasminogen Activity | 422 | 141 |
| 85613 | DRVVT Screen, DRVVT Confirm, and DRVVT 1:1 Mix | 173 | 58 |
| 85732 | Lupus Anticoagulant and Antiphospholipid Antibody Confirmatory Profile | Data not available | Data not available |
| 86146(x3) | Beta-2-Glycoprotein I Antibodies (IgG, IgA, IgM) | 36 | 12 |
| 86147(x3) | Cardiolipin Antibody | 170 | 57 |

*Average reimbursement across non-Diagnosis-Related Group (DRG)-based payors.

NOTE: Abbreviations: CPT, current procedural terminology; DRVVT, Dilute Russell's viper venom time; Ig, immunoglobulin.