**Marshfield Venous Thromboembolism Phenotype (eMERGE II)**

Last updated: January 7, 2013

**Cases** (must meet both conditions):

1. Have Venous Thromboembolism diagnosis codes on 2 or more dates (see Appendix A).
2. Have no exclusion diagnosis codes ever (see Appendix B).

**Controls** (must meet all three conditions):

1. Have no Venous Thromboembolism diagnosis codes ever (see Appendix A).
2. Have no exclusion diagnosis codes (see Appendix B).
3. Does not meet VTE case definition via NLP-based execution (see Appendix C).

**Appendix A:**

| CODE | DESCRIPTION |
| --- | --- |
| 415.1 | Pulmon Embolism/Infarct |
| 415.11 | Iatrogenic Pulmonary Embolism And Infarction 1095 |
| 415.19 | Other Pulmonary Embolism And Infarction 1095 |
| 453.0 | Budd-Chiari Syndrome |
| 453.1 | Thrombophlebitis Migrans |
| 453.2 | Embolism And Thrombosis Of Inferior Vena Cava |
| 453.4 | Acute venous Emb & Thromb of Deep Vess Low Ext |
| 453.40 | Acute Venous Emb & Thromb Unspec Deep Vess Low Ext |
| 453.41 | Acute Venous Emb & Thromb Deep Vess Prox Low Extr |
| 453.42 | Acute Venous Emb & Throm Deep Vess Distal Low Extr |
| 453.5 | Ch Ven Emb And Throm of Other Specified Vess |
| 453.50 | Ch Ven Emb And Throm Of Unsp Deep Ves Of Lower Ext |
| 453.51 | Ch Ven Emb And Throm Of Deep Ves Of Prox Lower Ex |
| 453.52 | Ch Ven Emb And Throm Of Deep Ves Of Dist Lower Ex |
| 453.6 | Ven Embol And Throm Of Superficial Ves Of Low Ext |
| 453.7 | Ch Ven Emb And Throm Of Other Specified Vess |
| 453.71 | Ch Ven Emb And Throm Of Superficial Veins Up Ext |
| 453.73 | Chr Ven Embol And Thromb Of Upper Extremity, Unspe |
| 453.74 | Ch Venous Embolism And Thrombosis Axillary Veins |
| 453.75 | Ch Ven Embolism And Thrombosis Of Subclavian Veins |
| 453.76 | Ch Ven Embol And Thrombosis Internal Jugular Veins |
| 453.77 | Ch Ven Embol And Thrombosis Other Thoracic Veins |
| 453.79 | Ch Ven Embolism And Thrombosis Other Spec Veins |
| 453.8 | Venous Thrombosis Nec |
| 453.800 | Deep Venous Thrombosis |
| 453.81 | Ac Ven Embol And Thromb Superficial Veins Upp Extr |
| 453.82 | Ac Venous Embol And Thromb Deep Veins Upp Extr |
| 453.83 | Ac Venous Embolism And Thromb Upp Extremity, Unspe |
| 453.84 | Ac Venous Embolism And Thrombosis Axillary Veins |
| 453.85 | Ac Venous Embolism And Thrombosis Subclavian Veins |
| 453.86 | Ac Venous Embol And Thromb Internal Jugular Veins |
| 453.87 | Ac Venous Embol And Thromb Other Thoracic Veins |
| 453.89 | Ac Venous Embolism And Thrombosis Other Spec Veins |
| V12.51 | Personal History Of Venous Thrombosis/Embolism |

**Appendix B:**

| CODE | DESCRIPTION |
| --- | --- |
| 451.12 | Septic Pulmonary Emboli |
| 452 | Portal Vein Thrombosis |

**Appendix C (NLP-based execution using MeTAKES):**

Either of the following two conditions will rule out a subject as a valid control:

1) At least one non-negated mention from Table A, Column 1 (Disorder related mentions) and Table A, Column 2 (Anatomical site related mentions) either in the SAME or adjacent sentences in a ‘section of interest’ OR

2) At least one non-negated term from the following list in a ‘section of interest’ from the Table B, Column 1 (Explicit “Stand-­‐alone” mentions) and/or Table C, Column 1 (Other mentions) without any of the exclusion terms (Table B, Column 2).

**Table A: List of disorder and anatomical related mentions (derived from the Mayo NLP algorithm)**

|  |  |
| --- | --- |
| **Disorder related mentions** | **Anatomical site related mentions** |
| Clot | Cerebral sinus |
| Emboli | Inferior vena cava |
| Embolism | Ivc |
| Phlebitis | Pulmonary artery |
| Thrombi | Pulmonary arteries |
| Thrombi | Pulmonary |
| Thromboemboli | Superior vena cava |
| Thromboembolic | Svc |
| Thromboembolism | Transverse sinus |
| Thrombophlebitis | Vein |
| Thomboses | Veins |
| Thrombosis | Venous |
| Thrombus |  |

**Table B: List of explicit stand-alone mentions and exclusion terms (derived from the Mayo NLP algorithm)**

|  |  |
| --- | --- |
| **Explicit “Stand-alone” mentions** | **Exclusion related mentions** |
| Deep vein thrombosis | Gonadal vein |
| Deep venous thrombosis | Ovarian vein |
| Dvt | Prostatic vein |
| Pe |  |
| Pulmonary embolism |  |
| Pulmonary embolus |  |
| Pulmonary emboli |  |
| Pulmonary thromboemboli |  |
| Vein thrombosis |  |
| Venous thrombosis |  |
| Venous thromboembolism |  |
| Vte |  |
| Inferior vena cava thrombosis |  |
| Ivc thrombosis |  |
| Svc thrombosis |  |
| Superior vena cava thrombosis |  |

**Table C: Alternate list of related terms (derived from the VU NLP algorithm)**

|  |
| --- |
| **Other mentions that can be considered “stand-alone” explicit terms for VTE NLP discovery** |
| Pulmonary embolism |
| Deep vein thrombosis of lower limb |
| Acute PE |
| Calf thrombosis |
| Deep venous thrombosis chronic |
| Deep venous thrombosis distal |
| Deep venous thrombosis proximal |
| Thromboembolism |
| Thrombosis |
| Thrombophlebitis |
| Pulmonary thrombosis |
| Venous thrombosis |
| Occlusive thrombus |