RISK OF BLOOD CLOTS AFTER COVID-19 VACCINATION AND COVID-19 INFECTION: A RISK-BENEFIT ANALYSIS

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**Figure S1:** Self-controlled case series design to study the association between blood clots and the first two doses of either mRNA-1273 or BNT162b2 COVID-19 vaccines. Each patient is followed from the day of exposure to 28 days and censored at the second dose, death or end of observational period.

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**Figure S2:** Case-control design to study the association between blood clots and COVID-19 infection. A subject is classified into the exposed group (COVID-19 infected) if they have a positive COVID-19 test in the period 28 days prior to the date of outcome (either blood clots or hospitalized injury).



**Table S1:** ICD-10 codes used to identify thromboembolic events (blood clots).

|  |  |  |
| --- | --- | --- |
| **Outcome** | **ICD10 code** | **ICD10 code and description** |
| **Venous thromboembolism** | I26 | Pulmonary embolism |
| I260 | Pulmonary embolism with mention of acute cor pulmonale |
| I269 | Pulmonary embolism without mention of acute cor pulmonale |
| I81 | Portal vein thrombosis |
| I81X | Portal vein thrombosis |
| I82 | Other venous embolism and thrombosis |
| I820 | Budd-Chiari syndrome |
| I822 | Embolism and thrombosis of vena cava |
| I823 | Embolism and thrombosis of renal vein |
|  | I828 | Embolism and thrombosis of other specified veins |
| I829 | Embolism and thrombosis of unspecified vein |
| **Arterial thrombosis** | I742 | Embolism and thrombosis of arteries of upper extremities |
| I74 | Arterial embolism and thrombosis |
| I740 | Embolism and thrombosis of abdominal aorta |
| I741 | Embolism and thrombosis of other and unspecified parts of aorta |
| I743 | Embolism and thrombosis of arteries of lower extremities |
| I744 | Embolism and thrombosis of arteries of extremities, unspecified |
| I745 | Embolism and thrombosis of iliac artery |
| I748 | Embolism and thrombosis of other arteries |
| I749 | Embolism and thrombosis of unspecified artery |
| **Cerebral venous sinus thrombosis** | O225 | Cerebral venous thrombosis in pregnancy |
| O873 | Cerebral venous thrombosis in the puerperium |
| I636 | Cerebral infarction due to cerebral venous thrombosis |
| I676 | Non-pyogenic thrombosis of intracranial venous system |
| **Ischemic stroke** | G45 | Transient cerebral ischemic attacks and related syndromes |
| G450 | Vertebrobasilar artery syndrome |
| G451 | Carotid artery syndrome (hemispheric) |
| G452 | Multiple and bilateral precerebral artery syndromes |
| G453 | Amaurosis fugax |
| G454 | Transient global amnesia |
| G458 | Other transient cerebral ischemic attacks and related syndromes |
| G459 | Transient cerebral ischemic attack, unspecified |
| I63 | Cerebral infarction |
| I630 | Cerebral infarction due to thrombosis of precerebral arteries |
| I631 | Cerebral infarction due to embolism of precerebral arteries |
| I632 | Cerebral infarction due to unspecified occlusion or stenosis of precerebral arteries |
| I633 | Cerebral infarction due to thrombosis of cerebral arteries |
| I634 | Cerebral infarction due to embolism of cerebral arteries |
| I635 | Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries |
| I636 | Cerebral infarction due to cerebral venous thrombosis, non-pyogenic |
| I638 | Other cerebral infarction |
| I639 | Cerebral infarction, unspecified |
| I64 | Stroke, not specified as haemorrhage or infarction |
| I64X | Stroke, not specified as haemorrhage or infarction |
| **Myocardial infarction** | I21 | Acute myocardial infarction |
| I210 | Acute transmural myocardial infarction of anterior wall |
| I211 | Acute transmural myocardial infarction of inferior wall |
| I212 | Acute transmural myocardial infarction of other sites |
| I213 | Acute transmural myocardial infarction of unspecified site |
| I214 | Acute subendocardial myocardial infarction |
| I219 | Acute myocardial infarction, unspecified |
| I22 | Subsequent myocardial infarction |
| I220 | Subsequent myocardial infarction of anterior wall |
| I221 | Subsequent myocardial infarction of inferior wall |
| I228 | Subsequent myocardial infarction of other sites |
| I229 | Subsequent myocardial infarction of unspecified site |
| I23 | Certain current complications following acute myocardial infarction |
| I230 | Haemo-pericardium as current complication following acute myocardial infarction |
| I231 | Atrial septal defect as current complication following acute myocardial infarction |
| I232 | Ventricular septal defect as current complication following acute myocardial infarction |
| I233 | Rupture of cardiac wall without haemopericardium as current complication following acute myocardial |
| I234 | Rupture of chordae tendineae as current complication following acute myocardial infarction |
| I235 | Rupture of papillary muscle as current complication following acute myocardial infarction |
| I236 | Thrombosis of atrium, auricular appendage, and ventricle as current complications following acute myocardial |
| I238 | Other current complications following acute myocardial infarction |
| I252 | Old myocardial infarction |

**Table S2:** ICD-10 codes used to identify hospitalized injury event**.**

|  |  |  |
| --- | --- | --- |
| **Injuries**  | S00-S09 | Injuries to the head |
| S10-S19 | Injuries to the neck |
| S20-S29 | Injuries to the thorax |
| S30-S39 | Injuries to the abdomen, lower back, lumbar spine, pelvis and external genitals |
| S40-S49 | Injuries to the shoulder and upper arm |
| S50-S59 | Injuries to the elbow and forearm |
| S60-S69 | Injuries to the wrist, hand, and fingers |
| S70-S79 | Injuries to the hip and thigh |
| S80-S89 | Injuries to the knee and lower leg |
| S90-S99 | Injuries to the ankle and foot |
| T07-T35 | Injures and others consequences of external causes |
| T51-T88 |