## Table 2. Summary of Case Reports of iTTP and COVID-19 Infection.

| Author            | Age, Gender | COVID-19 diagnosis         | TTP de novo or relapse | TTP Diagnosis | Clinical/Laboratory Presentation | Treatment                              | Outcome                     |
|--------------------|-------------|-----------------------------|------------------------|---------------|-----------------------------------|----------------------------------------|-----------------------------|
| AL-Ansarin         | 51 M        | Positive NP swab            | De novo                | Clinical      | Hgb nadir 60, Plt 45-50, LDH 757, Cr 227 (CRRT), ischemic stroke | TPE                                      | Survived                    |
| Albiol             | 57 F        | Negative PCR, positive IgG  | De novo                | ADAMTS13 activity <10%, positive inhibitor | Hgb 69, Plt 13, LDH 1594, Cr 63.66 | TPE, steroids, IVIG, plasma transfusion | Unknown                     |
| Altowyan           | 39 M        | Positive test               | De novo                | PLASMIC score = 6 | Hgb 77, Plt 6, LDH 1600, Cr 77, ischemic stroke, acute psychosis | TPE, steroids, rituximab, COVID-19 management | Survived                    |
| Aminimo gh-addam   | 21 F        | Positive NP swab            | De novo                | Clinical      | Hgb 50, Plt 21, LDH 1910, Cr 495.15 | TPE                                     | Survived                    |
| Beaulieu           | 70 M        | Positive                    | De novo                | ADAMTS13 activity <10%, antibody positive | Hgb 60, Plt 18, LDH 1422, Cr 106, seizure, confusion | TPE, steroids, plasma transfusion | Survived                    |
| Capecchi           | 55 F        | Swab negative x2, positive IgG | Relapse                | ADAMTS13 activity <10%, antibody positive | Hgb 74, Plt 14, LDH 18015, Cr 276.75, troponin 1426 ng/mL, ischemic stroke with petechial hemorrhage | TPE, steroids, plasma transfusion, caplacizumab | Survived                    |
| Cohen              | 62 F        | 1st swab negative, 2nd swab positive | De novo                | ADAMTS13 activity <10%, antibody positive | Hgb 95, Plt 41, LDH 937, Cr 87.54 | TPE, steroids, plasma transfusion, caplacizumab, rituximab | 2 TTP relapses, survived |
| Darnahal           | 56 F        | Positive NP swab            | De novo                | ADAMTS13 activity <10%, antibody positive | Hgb 60, Plt 41, LDH 2245, ICH | TPE, rituximab                      | Deceased (severe lung involvement and hemorrhagic stroke) |
| Dhingra            | 35 F        | Positive NP and oropharyngeal swab | De novo                | ADAMTS13 activity <10%, inhibitor positive | Hgb 82.5, Plt 20, LDH 10977, Cr 66.32, ischemic stroke, seizure | TPE, vincristine, rituximab | Survived                    |
| Name     | Gender | Age | Test Type | Test Result | ADAMTS13 | ADAMTS13 Activity | ADAMTS13 Inhibitor | Clinical Findings | Therapies | Outcome               |
|----------|--------|-----|-----------|-------------|----------|-------------------|-------------------|-------------------|------------|----------------------|
| Dorooshi | F      | 81  | PCR       | Positive    | De novo  | Hgb 72, Plt 52, LDH 2237, Cr 786.94 to 804.62, loss of consciousness | Steroids, plasma transfusion | Deceased (cardiac arrest) |
| Hindelreden | F   | 74  | swab      | Positive    | De novo  | Hgb 66, Plt 48, LDH 1108, confusion | TPE, steroids | Survived |
| Law      | F      | 47  | swab      | Positive    | De novo  | Hgb 70, Plt 14, LDH 2229, Cr 88.42, seizure | TPE, caplacizumab | Survived |
| Maharaj  | F      | 69  | PCR       | Positive    | Relapse  | ADAMTS13 activity <10%, inhibitor positive | Left femoral catheter-associated deep vein thrombosis (2 weeks after COVID-19 diagnosis) | Relapse 1: TPE, steroids, Relapse 2: TPE, steroids, intolerant to rituximab, Relapse 3: TPE, steroids | 3 TTP relapses, deceased (refractory hypoxia and severe multi-organ failure) |
| Nicolotti | F      | 44  | swab      | Positive    | De novo  | ADAMTS13 activity <10%, antibody positive | Plt 7, LDH 2961, Cr 203.37, confusion, left hemiparesis | TPE, steroids, rituximab, caplacizumab | Survived |
| Shankar  | M      | 30  | PCR       | Positive    | De novo  | ADAMTS13 activity <10%, inhibitor positive | Hgb 137, Plt 9, LDH 1375, Cr 133.51 | TPE, steroids, plasma transfusion, caplacizumab | Survived |
| Tehrani-1 | F    | 25  | imaging and PCR | Positive | De novo  | ADAMTS13 antigen low, antibody positive | Hgb 70, Plt 10.5, LDH 3465 | TPE | Survived |
| Tehrani-2 | F    | 56  | imaging and PCR | Positive | De novo  | ADAMTS13 antigen low, antibody positive | Hgb 60, Plt 41, LDH 1520, hemorrhagic stroke | TPE, rituximab | Deceased (hemorrhagic stroke) |
| Tehrani-3 | F    | 57  | imaging and PCR | Positive | De novo  | ADAMTS13 antigen normal, antibody positive | Hgb 79, Plt 98, LDH 1150 | Plasma transfusion (TPE unavailable), IVIG | Survived |
| Tehrani-4 | M    | 38  | imaging and PCR | Positive | De novo  | ADAMTS13 antigen low, antibody positive | Hgb 80, Plt 5, LDH 545 | TPE, rituximab, IVIG | Survived |
| Verma | 21 M | Positive RT-PCR | De novo | PLASMIC score=7 | Hgb 59, Plt 10 | Plasma transfusion (TPE intolerance), dexamethasone (for COVID-19 infection and HLH), IVIG (for HLH) | Developed HLH; deceased (pneumothorax, secondary lung infection, progressive cachexia and possible progression of TTP) |

**Abbreviations:** M male and F female; NP nasopharyngeal; Hgb hemoglobin (g/L); Plt platelet (x10⁹/L); LDH lactate dehydrogenase (U/L); Cr creatinine (umol/L); CRRT continuous renal replacement therapy; TPE therapeutic plasma exchange; IVIG intravenous gammaglobulin; ICH intracranial hemorrhage; HLH hemophagocytic lymphohistiocytosis.

**Note:** The literature search was last updated on January 30, 2022.
### Table 3. Summary of Case Reports of iTTP Following COVID-19 Vaccination.

| Report         | Patient Age (years) and Gender | Type of COVID19 Vaccine                        | First or Second Dose | Time to TTP Presentation | De novo vs Relapse TTP |
|----------------|---------------------------------|-----------------------------------------------|----------------------|--------------------------|------------------------|
| Al-Ahmad et al | 37, male                         | AstraZeneca Oxford COVID-19 vaccine           | First                | 3 weeks                  | De novo                |
| Alislambouli et al | 61, male                      | BNT162b2 (Pfizer)                             | First                | 5 days                   | De novo                |
| Chamarti et al  | 80, male                         | BNT162b2 (Pfizer)                             | Second               | 2 weeks                  | De novo                |
| Fang et al      | 70s, male                        | mRNA-1273 (Moderna)                           | First                | 7 days                   | Relapse                |
| de Bruijnin et al | 38, female                    | BNT162b2 (Pfizer)                             | Second               | 3 weeks                  | De novo                |
| Francisco et al | 57, male                         | mRNA-1273 (Moderna)                           | Second               | 7 weeks                  | Relapse                |
| Herrman et al   | “elderly”, female                | mRNA-1273 (Moderna)                           | Third                | 8 days                   | De novo                |
| Karabulut et al | 48, male                         | mRNA-1273 (Moderna)                           | First                | 5 days                   | Relapse                |
| Li et al        | 50, female                       | ChAdOx1 nCoV-19 vaccccine (Vaxzevria)         | First                | 12 days                  | De novo                |
| Osmanodia et al | 25, male                         | mRNA-1273 Moderna Spikevax                   | First                | 13 days                  | De novo                |
| Sissa et al     | 48, female                       | BNT162b2 (Pfizer)                             | Second               | 6 days                   | Relapse                |
| Pavenski        | 84, male                         | BNT162b2 (Pfizer)                             | First                | 7 days                   | Relapse                |
| Waqar et al     |                                 | BNT162b2 (Pfizer)                             | Second               | 1 week                   | De novo                |
| Yocum et al     | 62, female                       | Ad26.COV2.S (Johnson & Johnson               | N/A                  | 37 days                  | De novo                |
| Yoshida et al   | 57, male                         | BNT162b2 (Pfizer)                             | First                | 2 weeks                  | De novo                |

**Note:** The literature search was last updated on January 30, 2022. Only cases where TTP diagnosis was confirmed by ADAMTS13 activity testing were included.
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