

## Relapse in thrombotic thrombocytopenic purpura

To obtain credit, you should first read the journal article. After reading the article, you should be able to answer the following, related, multiple-choice questions. To complete the questions (with a minimum 75% passing score) and earn continuing medical education (CME) credit, please go to <https://www.medscape.org/journal/blood>. Credit cannot be obtained for tests completed on paper, although you may use the worksheet below to keep a record of your answers. You must be a registered user on <https://www.medscape.org>. If you are not registered on <https://www.medscape.org>, please click on the "Register" link on the right hand side of the website. Only one answer is correct for each question. Once you successfully answer all post-test questions you will be able to view and/or print your certificate. For questions regarding this activity, contact the accredited provider, [CME@medscape.net](mailto:CME@medscape.net). For technical assistance, contact [CME@medscape.net](mailto:CME@medscape.net). American Medical Association Physician's Recognition Award (AMA PRA) credits are accepted in the US as evidence of participation in CME activities. For further information on this award, please go to <https://www.ama-assn.org>. AMA PRA Category 1 Credit™ may be awarded to any physician (defined by the AMA as MDs, DOs, or international physicians with equivalent degrees from other countries). The requirements for awarding AMA PRA Category 1 Credit™ to U.S. and non-U.S.-licensed physicians are the same.

Doyle AJ, Stubbs MJ, Dutt T, Lester W, Thomas W, van Veen J, Hermans J, Cranfield T, Hill QA, Clark A, Bagot C, Austin S, Westwood J-P, Thomas M, Scully M. Long-term risk of relapse in immune-mediated thrombotic thrombocytopenic purpura and the role of anti-CD20 therapy. *Blood*. 2023;141(3):285-294.

- Your patient is a 52-year-old man with immune-mediated thrombotic thrombocytopenic purpura (iTTP) treated acutely with rituximab. According to the study by Doyle and colleagues of 443 relapsed patients with iTTP relapses having >3 years' follow-up over a 10-year period in the United Kingdom, which of the following statements about patient characteristics linked to iTTP relapse, and relapse rates and patterns, is correct?**

  - At 5-year follow-up, relapse rate was 20%
  - At 10-year follow-up, patients not treated vs treated acutely with rituximab had twice the rate of relapse
  - Black Caribbean ethnicity was linked to an increased risk for disease relapse (odds ratio [OR] 2.66 [95% confidence interval [CI]: 1.42, 5])
  - 15% of patients relapsed early with subsequent frequent relapses occurring on average within 2 years
- According to the study by Doyle and colleagues of 443 patients with iTTP relapses having >3 years' follow-up over a 10-year period in the United Kingdom, which of the following statements about clinical features during ADAMTS13 relapses and response to anti-CD20 therapy in those with ADAMTS13 relapses is correct?**

  - One-quarter of relapses were ADAMTS13 relapses, most of which had preceding symptoms including visual and gastrointestinal (GI) disturbances
  - Preemptive anti-CD20 therapy was effective in 96% of ADAMTS13 relapses, regardless of relapse frequency, to achieve ADAMTS13 levels >20%
  - The subgroup of 6% of patients with frequent relapses did not respond well to anti-CD20 treatment
  - Rate of clinical relapses did not change during the study period
- According to the study by Doyle and colleagues of 443 patients with iTTP relapses having >3 years' follow-up over a 10-year period in the United Kingdom, which of the following statements about clinical implications of patient characteristics linked to iTTP relapse, relapse rates and patterns, and response to anti-CD20 therapy in persons with ADAMTS13 relapses is correct?**

  - The study identified clear predictors of early relapse and failure to respond to treatment
  - Regular monitoring of ADAMTS13 activity is unlikely to be clinically useful
  - Adverse events (AEs) related to rituximab were rare
  - Repeated anti-CD20 therapy for ADAMTS13 relapses is a long-term therapeutic option in iTTP, lowering risk for clinical relapse and hospitalization