# Thrombocytopenia in critically ill surgical patients: a case-control study evaluating attributable mortality and transfusion requirements


## ABSTRACT

A true causal relationship is not found with thrombocytopenia, and therefore, the current study proposes that those with less than 50 109 platelets/l may be indicative of more serious illness and increased risk of death from a lesser amount of platelet count (thomphomocytopenic syndrome), which in turn leads to an increase in their blood product consumption.


## INTRODUCTION

Introduction Thrombocytopenia (T), a rare condition that affects approximately 5% of all patients with T, is a serious condition that can cause serious complications as well as mortality. The incidence of T in the general population is estimated at 1 in 8,000, with an estimated mortality rate of 1 in 20,000.1,2 The risk of T is greatest in patients with a high risk of bleeding, thrombocytopenia and a high risk of transfusion requirements.3,4 In the United Kingdom, between 4,000 and 10,000 patients die annually from T, with a mortality rate of 1 in 100,000.5,6,7,8,9,10,11

The incidence of T The mortality rates in these patients are high due to various factors, and it is challenging to determine whether thrombocytopenia directly accounts for this. The difficulty in determining the threshold for severe thrombocytopenia that is expected to jeopardize the prognosis arises from factors beyond the reasonable doubt. For instance, a platelet count below 50 109/l is associated with ill outcome, as suggested by us and others. Furthermore, guidelines for platelets transfusion have stated that the requirement for blood transfusal in surgical patients is higher than the recommended value of 50 just 107/100. The evaluation of excess mortality through case-control studies involves the careful matching of confounding variables, such as the severity of an underlying illness and the reason for being hospitalized. However, no cases-controlled studies have been published that closely matched important variables like morbidity and mortality associated with thrombocytopenia in ICU patients. A case-control study was designed to assess the impact of severe thrombocytopenia ( 50 109 platelets/l) on mortality and blood product requirements in surgical ICU patients.

## CONCLUSION

The authors conclude that thrombocytopenia of less than 50109platelets/l is associated with excess mortality, independent of age and initial illness severity, and with excessive blood product consumption, resulting in a significant economic burden. They also note that the relationship between thripeny and mortality has not been fully characterized, specifically in patients with septiceptic syndrome. Further research on the specific role of thambodiacytopenic ThromboCYP1 in shock and infection is still lacking, while many clinics should continue to use different methods for the management