

## A Clinical Approach to Thrombocytopaenia

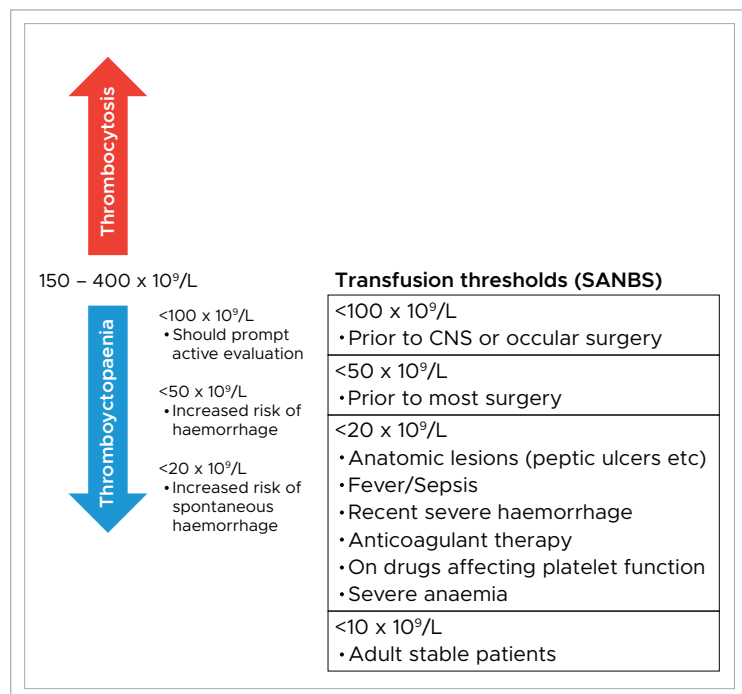
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### What is thrombocytopaenia?

Thrombocytopaenia is defined as a reduced platelet count where in most instances the lower threshold is considered to be  $150 \times 10^9$  per litre in adult patients.

The clinical relevance of various levels of thrombocytopaenia differ (Figure 1).

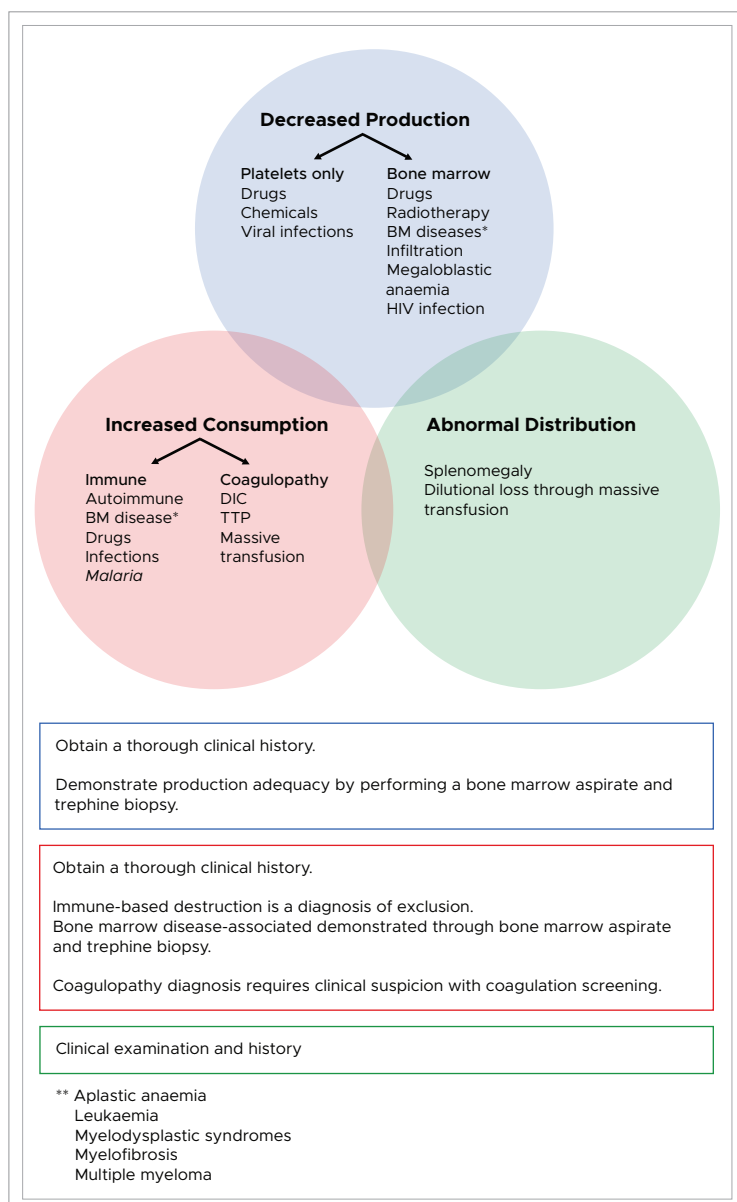
Figure 1. Clinical definition and relevance of thrombocytopaenia.



### What are the causes of thrombocytopaenia?

Various clinical factors will need to be considered in the work-up of a patient presenting with thrombocytopaenia, including factors like pregnancy-state, medication use and prior medical history (figure 2).

Figure 2. Broad representation of common causes of thrombocytopaenia and diagnostic tools





### What should I consider upon finding my patient to have a thrombocytopaenia?

The first question should be whether the level of thrombocytopaenia justifies transfusion. The SANBS guidelines should be utilized in this regard as platelet transfusions are both costly and a very limited resource.

The second issue should be to determine the underlying cause.

Typically, a clinical history and clinical examination will allude to the obvious causes, however, should this approach not yield a diagnosis, a purely pragmatic approach of demonstrating sufficient or insufficient production should be followed (this is attained through performing a bone marrow aspirate with trephine biopsy).

Of note, the diagnosis of immune-mediated platelet destruction (Also referred to as Idiopathic Thrombocytopaenic Purpura - ITP) is a diagnosis of exclusion.

### References

1. Clinical Guidelines for the Use of Blood Products in South Africa - SANBS
2. Essential Haematology 5th Edition, Hoffbrand AV, Moss PAH and Pettit JE.

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