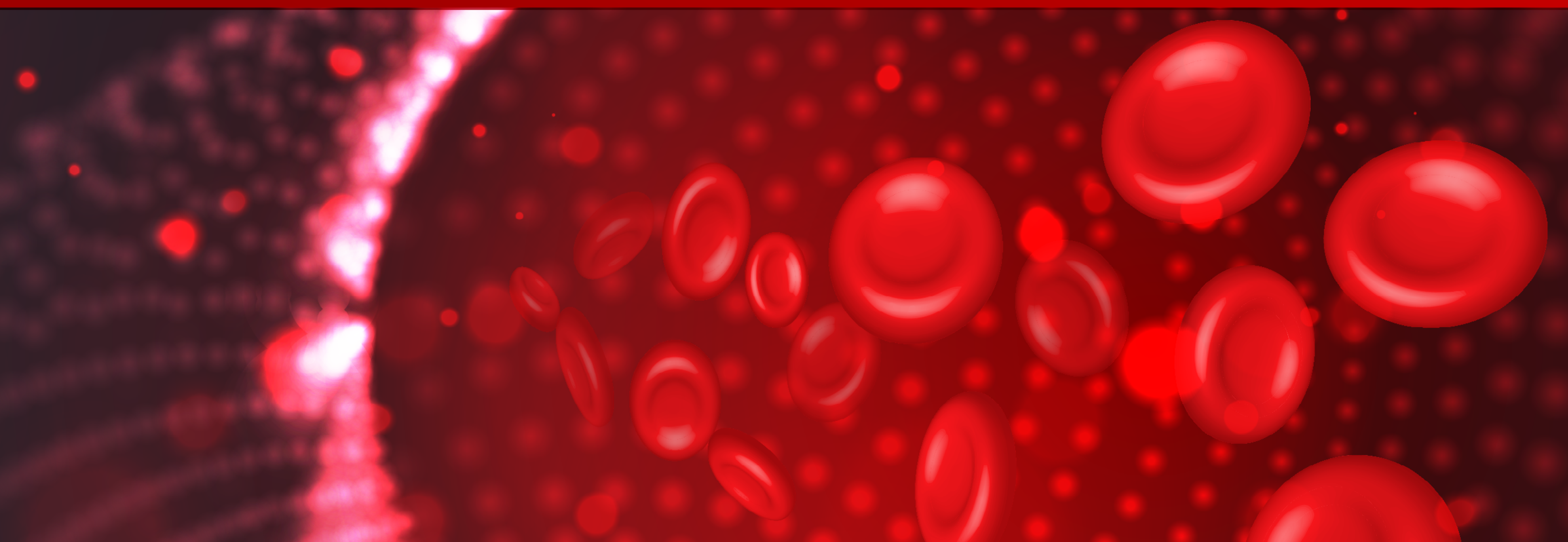


CURRENT MANAGEMENT OF ITP





Inpatient vs. outpatient management

INPATIENT MANAGEMENT:

- Advised for patients with NEWLY diagnosed ITP
- platelet count below $20 \times 10^9/L$
- are asymptomatic
- or have minor symptoms such as wet purpura, continuous epistaxis needing intervention, menorrhagia, gum bleeding or multiple large bruises larger than 3 cm

OUTPATIENT MANAGEMENT:

- advised for patients
 - with a platelet count of at least $20 \times 10^9/L$
 - asymptomatic
 - have minor mucocutaneous bleeding such as few petechiae, small bruises of less than 3 cm, or epistaxis on nose-blowing
- Can also consider for patients
 - with established ITP
 - with a platelet count below $20 \times 10^9/L$
 - are asymptomatic or have minor symptoms



Observation vs corticosteroid therapy

OBSERVATION THERAPY:

- for newly diagnosed patients with a platelet count of at least $30 \times 10^9/L$
- asymptomatic or have minor mucocutaneous bleeding
- clinical judgment is advised for patients with additional comorbidities

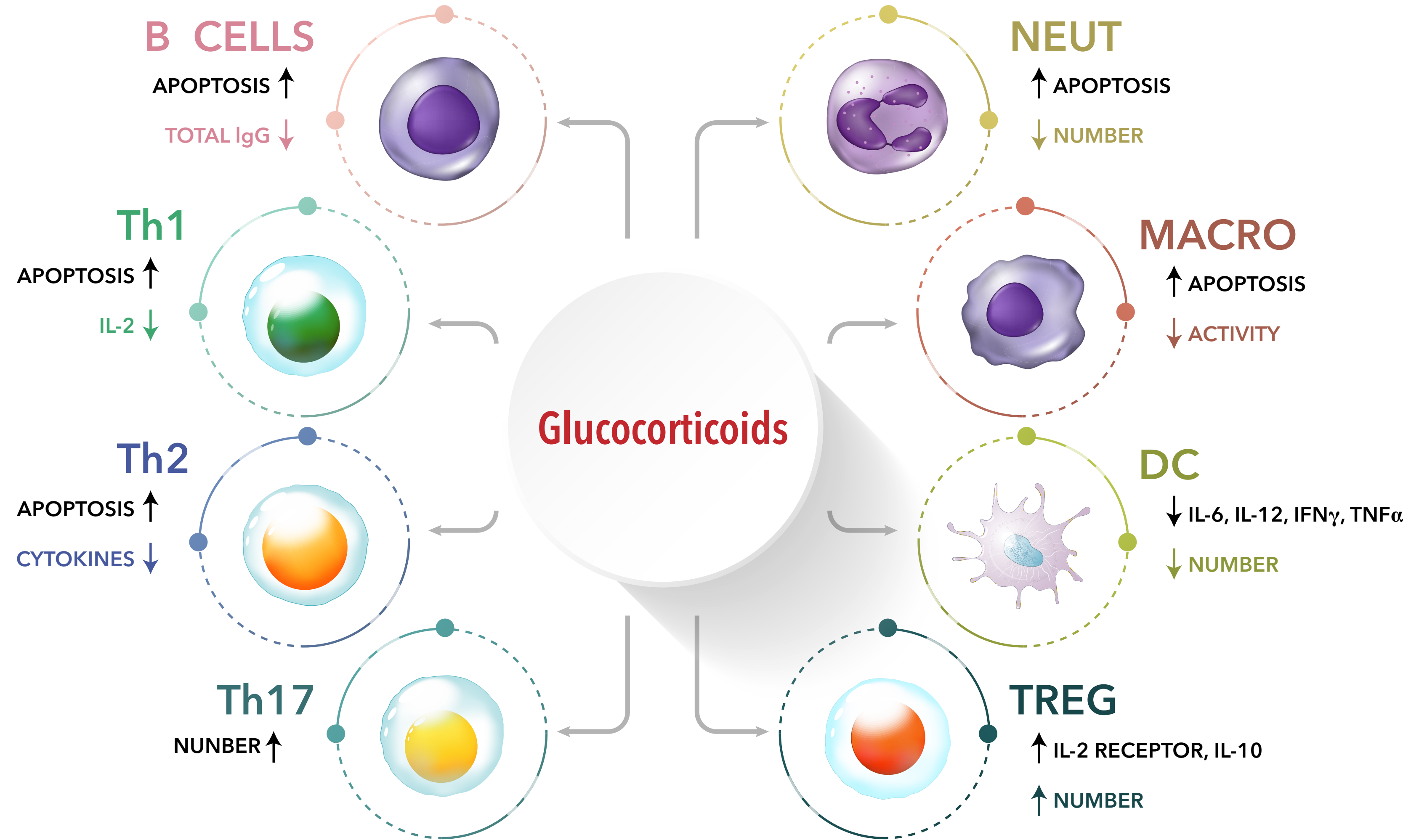
CORTICOSTEROID THERAPY:

- newly diagnosed patients
- platelet count less than $30 \times 10^9/L$
- asymptomatic or patients with minor or more significant bleeding
- extra consideration while administering this therapy to patients with poorly controlled diabetes and those who are immunocompromised.



Historical First-Line Treatment

Historically immunomodulation has occurred with the use of corticosteroids. Corticosteroids are potent modulators of the immune system that work through alterations in not T and B cells but also neutrophils, dendritic cells, and macrophages. They induce cell apoptosis, down regulate pro-inflammatory cytokines while upregulating anti-inflammatory cytokines, and alter cell numbers to favor tolerance of self.





Adult ITP Summary

Recommendation	Population	Intervention	Comparator	Strength	Certainty in the evidence
1a	Newly Diagnosed Platelet Count $< 30 \times 10^9/l$ Asymptomatic or minor bleeding	Corticosteroids	Observation	Conditional	Very low
1b	Newly Diagnosed Platelet Count $\geq 30 \times 10^9/l$ Asymptomatic or minor bleeding	Corticosteroids	Observation	Strong	Very low
2a	Newly diagnosed Platelet Count $< 20 \times 10^9/l$ Asymptomatic or minor bleeding	Inpatient (new patient)	Outpatient (established patient)	Conditional	Very low
2b	Newly Diagnosed Platelet Count $\geq 20 \times 10^9/l$ Asymptomatic or minor bleeding	Inpatient	Outpatient	Conditional	Very low



Adult ITP Summary

Recommendation	Population	Intervention	Comparator	Strength	Certainty in the evidence
3	Newly diagnosed Requiring corticosteroids	Prolonged corticosteroids	Short course of corticosteroids	Strong	Very low
4	Newly diagnosed Requiring corticosteroids	Prednisone	Dexamethasone	Conditional	Very low
5	Newly diagnosed	Corticosteroids	Corticosteroids plus rituximab	Conditional	Very low



First- Line treatment: Adults

- The **platelet count threshold** at which bleeding risk increases and the natural history of newly diagnosed ITP with a platelet count of $<30 \times 10^9/l$ managed with observation is not known.
- At **higher platelet counts** within this population or in **younger patients**, observation may be reasonable.
- **Consideration** should be given to additional comorbidities, use of anticoagulants or antiplatelet medications, need for upcoming procedures, and age of the patient.

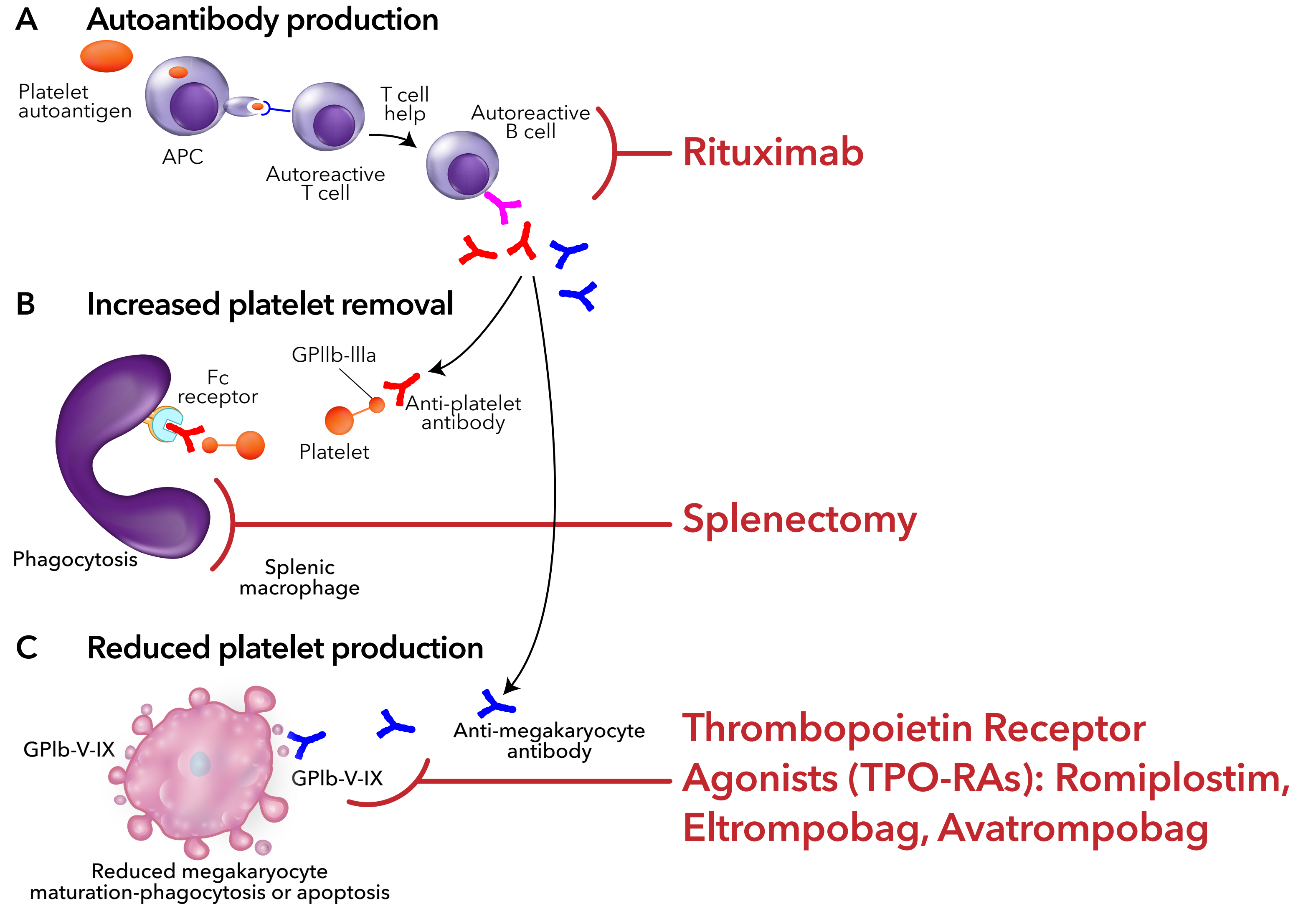


American Society of Hematology guidelines for type and duration of steroids as first-line therapy treatment:

- Recommend against a long course of prednisone (> 6 weeks including taper) in favor of a shorter course (≤ 6 weeks)
- dexamethasone vs prednisone: either is acceptable (prednisone 0.5–2.0 mg/kg/day or dexamethasone 40 mg/day for 4 days).
- Using corticosteroids alone for initial treatment rather than in combination with rituximab as first-line therapy
- Health care professionals should ensure adequate monitoring of patients for corticosteroid side effects regardless of the type or duration of corticosteroids selected.



Second-Line Therapy





Second-line Therapy: Adults

SUGGEST:

1. Rituximab rather than splenectomy
2. TPO-RAs rather than rituximab
3. Either splenectomy or TPO-RAs

RECOMMENDATION 1

**RITUXIMAB
SPLENECTOMY**

RECOMMENDATION 2

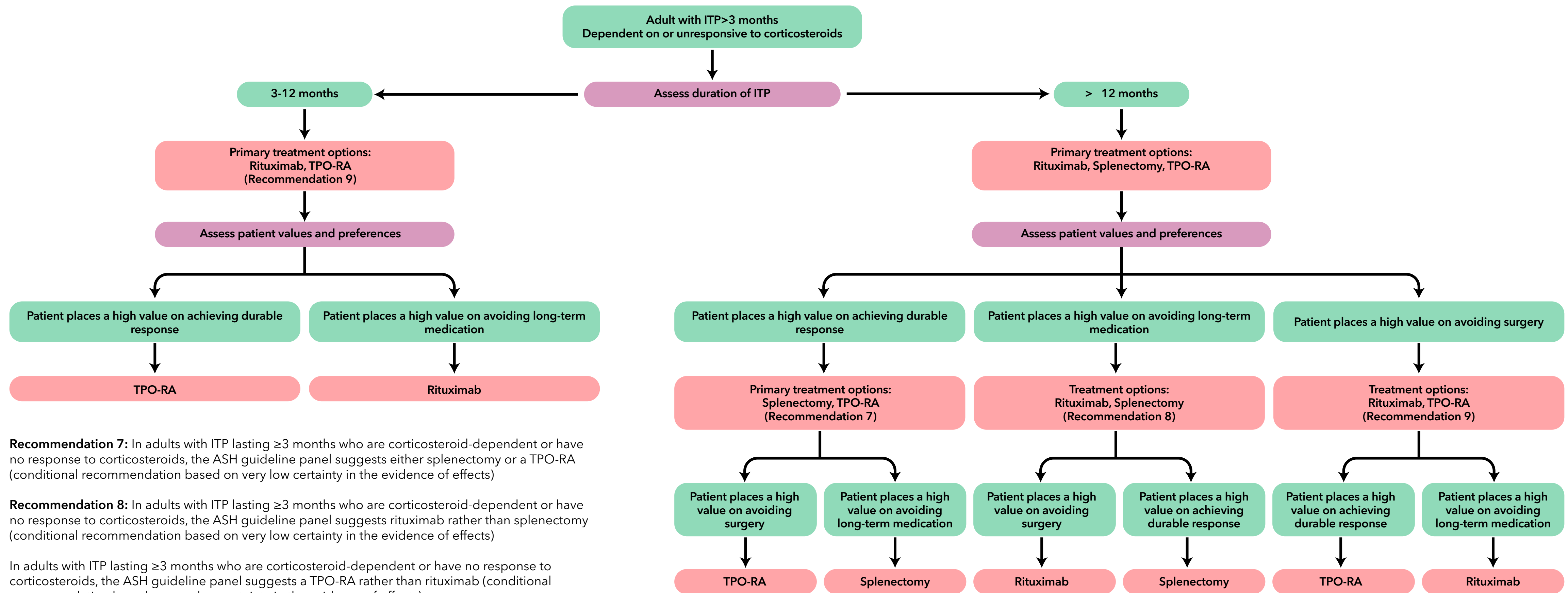
TPO-RAS

RECOMMENDATION 3

All conditional recommendations based on very low confidence in the evidence



ASH 2019 Guidelines for Immune Thrombocytopenia





Good Practice Statement

- The choice of second-line treatment should be **individualized** based on duration of ITP, frequency of bleeding episodes requiring hospitalization or rescue medication, comorbidities, adherence, medical and social support networks, patient values and preferences, cost, and availability.
- Patient **education and shared decision-making are encouraged.**
- If possible, splenectomy should be delayed for as long as possible after diagnosis because of the potential for spontaneous remission.

Other Therapies:

SYK inhibitor

First in class SYK inhibitor fostamatinib got FDA approved of adult patients with chronic ITP who have an insufficient response to previous treatment in 2018



References:

- Neunert, Cindy, et al. "American Society of Hematology 2019 guidelines for immune thrombocytopenia." *Blood advances* 3.23 (2019): 3829-3866.
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 - DeSouza, Sherwin, and Dana Angelini. "Updated guidelines for immune thrombocytopenic purpura: Expanded management options." *Cleveland Clinic Journal of Medicine* 88.12 (2021): 664-668.
 - Mullard, Asher. "FDA approves first-in-class SYK inhibitor." *Nature Reviews Drug Discovery* 17.6 (2018): 385-386.
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