

INFOGRAPHICS IN ANESTHESIOLOGY

Complex Information for Anesthesiologists Presented Quickly and Clearly

Taking the Temperature on Platelet Storage

Platelets are commonly stored at room temperature (22°C), which preserves normal life span after transfusion but degrades their hemostatic effect.¹ This is effective for thrombocytopenic patients but may not be ideal for other patients.

1st successful human blood transfusion² 1881

1st transfusion with type and crossmatch 1907

Rh group discovered 1939

Platelets reduce bleeding mortality in cancer patients 1961

Cold-stored (22°C) platelets perform better than room temperature in thrombocytopenic patients 1973

Better bacteriologic safety and hemostatic effect shown for cold-stored platelets 2014

1900 ABO blood types discovered

1910 Platelet transfusions decrease bleeding risk³

1940 U.S. starts blood collection program

1969 Room temperature platelet storage for 3 days achieved

1974 Cold-stored platelets perform better in aspirin-treated volunteers

2004 FDA clears platelets for 7-day storage with bacterial testing

2020 Clinical trial feasibility of cold-stored platelets demonstrated in a study of 65 complex cardiothoracic patients⁴

While *in vitro* and clinical studies show hemostatic superiority of cold-stored platelets, larger randomized controlled trials are needed to assess efficacy and safety for surgical and trauma usage.

FDA, Food and Drug Administration.

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