Obtain platelet count (test code PLT) 10 minutes to 1 hour post transfusion and calculate corrected count increment (CCI)*

Adequate response (CCI > 7.5)?

Yes

Treat factors associated with platelet consumption/sequstration:
- Sepsis
- DIC
- Bleeding
- Splenomegaly
- Graft-versus-host disease
- Veno-occlusive disease
- Medications

No

Adequate response (CCI > 7.5)?

Yes

Continue support with random donor platelets

No

Consult Blood Bank resident

Does the patient have risk factors for alloimmunization?
- Pregnancy
- Prior transfusion history

Yes

Consult Blood Bank resident

No

Does the patient have an HLA Class I type (test code ILSSP) available?

Yes

Blood Bank resident will check availability of HLA-compatible platelets

No

None available

Units available

Significant transfusion support anticipated?

Yes

Support with available HLA-compatible platelets

No

Support with available crossmatch-compatible platelets

Send platelet crossmatch (test code MOLT)

< 25% of units incompatible (minimal or no alloimmunization)

Send HLA-ABC type (test code ILSSP) and HLA antibody specificity class I (test code ILLS1)

> 75% of units incompatible (moderate or significant alloimmunization)

Significant transfusion support anticipated?

Yes

Support with available crossmatch-compatible platelets

No

Support with available HLA-compatible platelets

Send HLA antibody specificity class I (test code ILLS1)

Additional information available here

*Corrected Count Increment (CCI) Calculation

CCI = [(post count - pre count) x BSA]/3

Reviewer: Ashok Nambiar
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