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Predictors of Response and Outcome of Patients with Acquired Hemophilia A

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PREDICTORS OF RESPONSE AND OUTCOME OF PATIENTS WITH ACQUIRED HEMOPHILIA A

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INTRODUCTION

- AHA is caused by auto antibodies against coagulation factor VIII.
- Incidence: 0.2 to 1.5 persons per million yearly
- Mortality rate up to 25%.
- Associated with malignancy, autoimmune disorders, pregnancy, post-partum period and lymphoproliferative disorders
- Elderly > Young

INTRODUCTION

- Presentation: melena, hematuria, hemorrhages (intracranial, retroperitoneal, soft tissue etc.)
- Treatment involves treating the underlying condition, and to remove/neutralize autoantibodies against FVIII.
- Therapies include: Immunosuppressives, cytotoxics, plasmapheresis, recombinant factors and complex concentrates used alone or in combination.
- Prognosis is unpredictable. Some achieve complete remission, others have a chronic course.
- Clinical characteristics and outcomes are difficult to establish due to rarity.

MATERIALS AND METHODS

- Study was approved by HFH IRB
- Retrospectively evaluated 25 consecutive patients with AHA managed at HFH main campus from 02/2007 to 01/2018 using Sunquest (HFHS LIS).
- Eligible patients had reduced FVIII activity levels, detectable FVIII inhibitors, no hx of congenital hemophilia A.
- All blood samples were collected in Na citrate tubes. FVIII inhibitor was assayed using Bethesda unit (BU).
- Complete response (CR) was defined when FVIII inhibitors were negative with resolution of bleeding signs.

RESULT

- Statistical analysis were performed using SPSS software version 2. Parameters were analyzed using Student's t-test, Pearson's chi-square test and Fischer's exact test.
- Median age was 73.5 years (range 55.1-91.7 years)
- M > F. 13 (52%) were males.
- Underlying conditions: Malignancy (8 including GI CA, Prostate Adenocarcinoma, Lung carcinoma, Cervical carcinoma, follicular lymphoma, SLL/CLL, squamous cell carcinoma); infection (HIV and hepatitis)

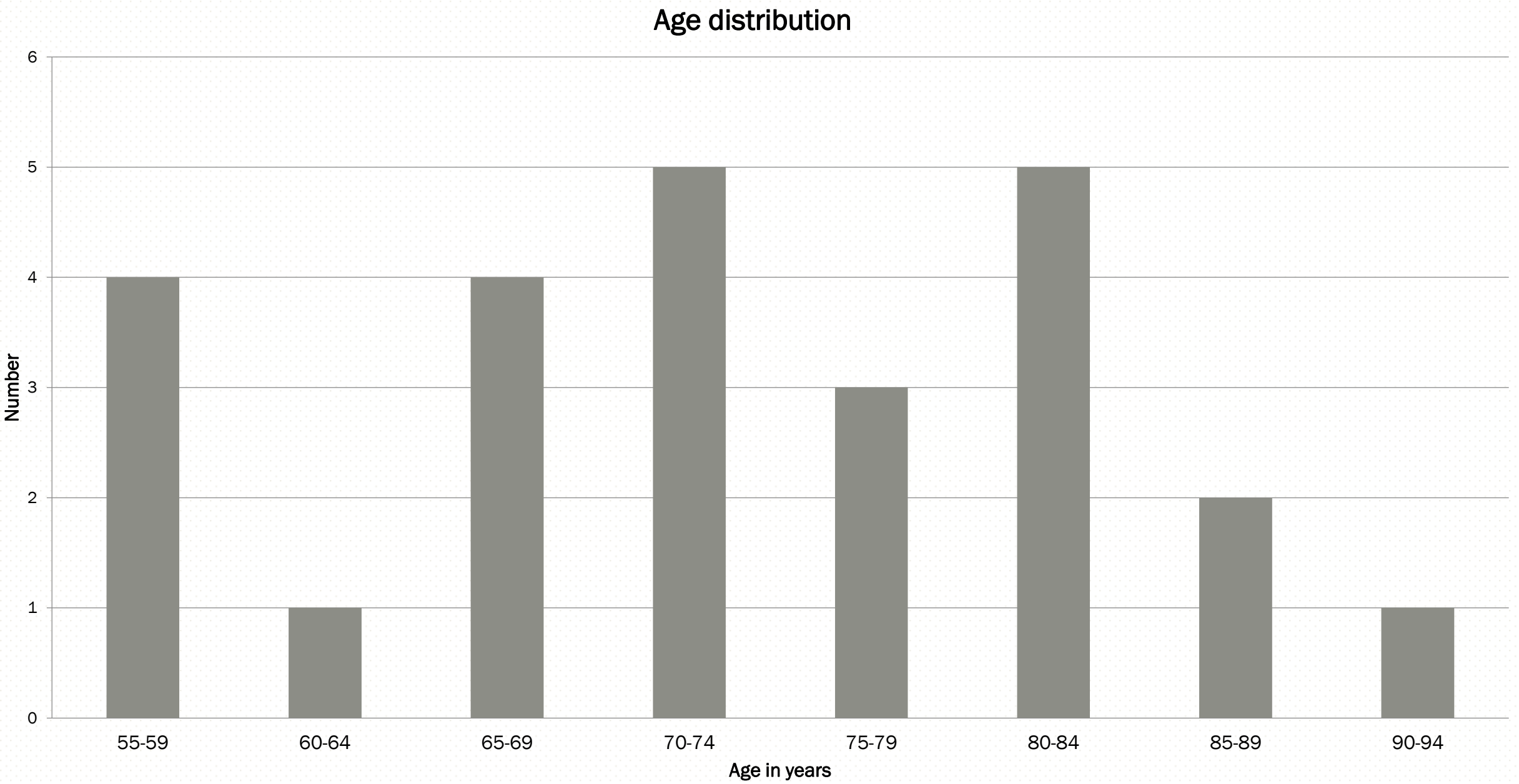
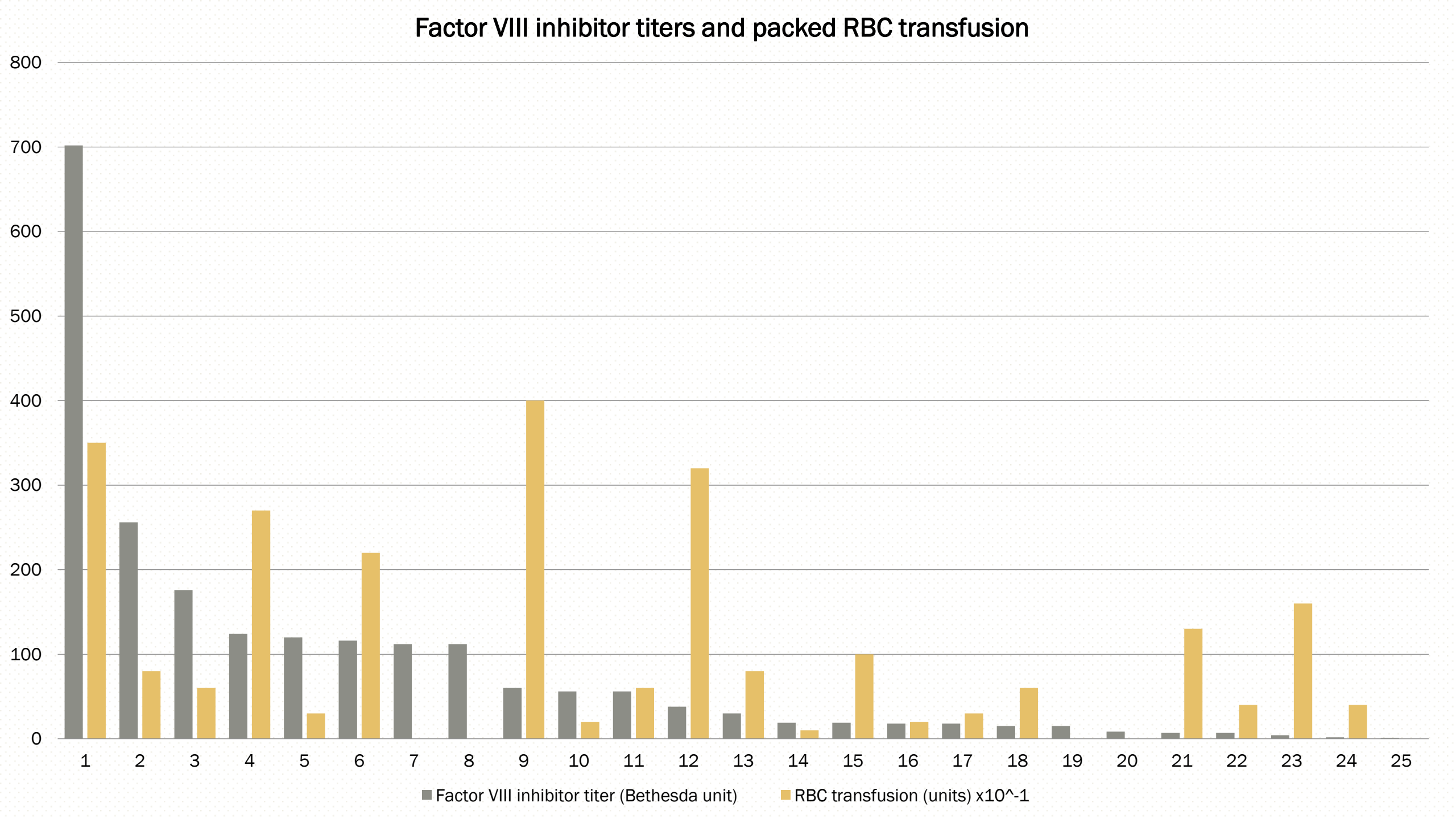

Age distribution
Number
0
1
2
3
4
5
6
55-59
60-64
65-69
70-74
75-79
80-84
85-89
90-94
Age in years

Table 1: Initial characteristics of our patients with acquired hemophilia A

N	25
Gender (M/F)	13/12
Age, median (Range), years	73.5 (55.1-91.7)
Ethnicity (Caucasian/African American)	14/11
Underlying disease, N (%)	
Idiopathic	13 (52%)
Malignancy	8 (32%)
Infection	2 (8%)
Autoimmune	2 (8%)
Hgb, median (Range), g/dL	7.5 (3.8-13.5)
aPTT, median (Range), sec	80 (44-125)
Factor VIII activity, median (Range), %	1 (0.29-34)
Factor VIII inhibitor titer, median (Range), BU	30 (0.8-702)

RESULT

- FVIII activity was decreased in all patients by FVIII inhibitors (median=30 BU; range: 0.87-702 BU)
- 20% of patients required PRBC transfusion (median=7 units; range: 1-40 units).
- 76% patients achieved CR after initial immunosuppressive therapy with prednisone alone, in combination with cyclophosphamide and rituximab.
- Median time to CR was 50 days (range: 2-191 days)
- CR was achieved early (<1 month) in patients with low FVIII inhibitor titers (<20 BU); odds ratio= 4.33, CI: 1.61-11.69; p= 0.003.
- Pts with high FVIII inhibitors titers (>20 BU) received > 5 units of PRBCs compared to patients with low titer levels (odds ratio-4.33; CI: 1.14-38.83, p=0.047).
- 2 patients relapsed at 10 months and 2 years respectively.
- 1 patient died of bleeding complication


Factor VIII inhibitor titers and packed RBC transfusion
800
700
600
500
400
300
200
100
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
Factor VIII inhibitor titer (Bethesda unit)
RBC transfusion (units) x10^-1

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