

	Median Pre CD34 /uL	Median CD34/ kg Initial Collection	Median CD34/ kg Second Collection	Median % of Initial Collection	Days to ANC >0.5 x10 ⁹ /L	Days to Plt >50 x10 ⁹ /L
NHL (n=7)	2.1 (1.5-6.2)	1.5 (1.27-1.68)	0.68 (0.27-1.96)	41% (21-114)	11 (10-12)	16 (11->28)
MM (n=3)	3.1 (3.1-5.7)	3.01 (1.85-3.77)	1.51 (1.11-3.01)	60% (40-85)	11 (9-12)	14 (13-14)

blood CD34 count. These algorithms are essential given the high cost of P and the inability to determine which patients will collect poorly using clinical parameters alone.

Previous studies have shown that the high cost of P is justified based on fewer apheresis days required. However when patients require 2 or more days of P the costs can become prohibitive.

To alleviate the need for additional days of P we piloted an approach where patients who were close to achieving their target collection goal after the first day of P continued their G CSF, but without an additional dose of P. Minimum accepted collection goals were 2×10^6 CD34/kg for NHL patients and 4×10^6 CD34/kg for MM patients.

From April 2012 through April 2014 170 patients underwent an autologous transplant. Fifty (29.4%) ultimately required P to mobilize adequate numbers of cells. Ten patients (7 NHL, 3 MM) were judged close to their preset target collection goal after their first dose of P. These patients were collected the following day without an additional dose of P.

As shown in Table 1 the median peripheral blood CD34/uL count prior to collection was 2.1 for NHL and 3.1 for MM. The median CD34 x 10^6 /kg collected the day following the dose of P was 1.5 (NHL) and 3.01 (MM). On the second day of collection without P, the median CD34 x 10^6 collected was 0.68 (NHL) and 1.51 (MM). All patients achieved their target goals and were able to successfully proceed to transplantation. The median percentage of the original collection is 40 and 60% respectively for NHL and MM. All patients engrafted with similar times to patients not requiring P, or who had a successful collection with a single apheresis.

It appears that in patients who are close to achieving their target dose, that the strategy of omitting the second dose of P can successfully allow collection of sufficient cells to permit autologous transplant with appropriate engraftment times. In our population 20% of the patients who received P fell into this category. With a cost of approximately \$7000 per patient dose, the cost savings per 100 patients transplanted would be approximately \$42,000. Such an approach clearly can minimize the costs associated with stem cell mobilization and collection without any difference in the clinical outcome.

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Safety and Efficacy of Low Dose Liposomal Amphotericin B for Prophylaxis of Invasive Fungal Infection in Hematopoietic Stem Cell Transplantation- a Single Center Experience

Joydeep Chakrabarty¹, Amrita Chakravarti², Kasturi Sengupta³, Neelesh Jain⁴, Shilpa Bhartia⁵, Soumya Bhattacharya⁶. ¹Haematology and stem cell transplant, Apollo Gleneagles Hospital, Kolkata, India; ²Apollo Gleneagles Hospital, Kolkata, India; ³Tata Medical Centre, Kolkata, India; ⁴Apollo Gleneagles Hospital, Kolkata, India; ⁵Apollo Gleneagles Hospital, Kolkata, India; ⁶Apollo Gleneagles Hospital, Kolkata, India

Ambisome (amphotericin B liposomal complex, L-Amb) is highly effective for the treatment of invasive fungal infections (IFI) and may be an important prophylactic drug in patients undergoing hematopoietic stem cell transplant

(HSCT). Several new anti-fungal drugs have become available over the past few years leading to various prospective studies aiming to assess the role of prophylaxis and treatment in IFI in HSCT. But drug related factors such as safety, efficacy, toxicity profile in the setting of pre-existing organ dysfunction and potential drug interaction, need to be considered. Ambisome is a liposomal formulation containing amphotericin B and is comparatively found to cause fewer infusional reactions and achieve superior plasma and tissue concentrations.

To determine the optimal approach for prophylactic antifungal therapy, we prospectively analyzed the efficacy and safety of low dose Ambisome, which is 1mg per kg body weight on alternate days in nineteen patients who underwent hematopoietic stem cell transplant at our institute, for the prophylaxis of IFI. This was a heterogeneous study group, having varied indications for transplant.

Results: The low dose regimen of 1mg/kg body weight on alternate days was well tolerated. Four out of nineteen patients developed manageable hypokalemia. No renal toxicity or infusional reactions were documented. However, a test dose was always administered. Only one patient having a T replete haploidentical transplant for follicular lymphoma developed probable IFI requiring anti-fungal therapy.

Conclusion: We conclude that low dose L-Amb may provide useful protection against invasive fungal infections in patients undergoing hematopoietic stem cell transplant.

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Determinants of Physical Activity Levels in Allogeneic Hematopoietic Stem Cell Transplantation Recipients

Gulsan Turkoz Sucak¹, Meral Bosnak Guclu², Zeynep Aribas², Gulsah Bargi², Elif Sakizli², Sahika Zeynep Aki¹, Zeynep Arzu Yegin¹. ¹Hematology, Gazi University Faculty of Medicine, Ankara, Turkey; ²Physical Therapy and Rehabilitation, Gazi University Faculty of Health Sciences, Ankara, Turkey

Respiratory and skeletal muscle strength and submaximal exercise capacity and physical activity levels are known to be reduced in a significant percentage of patients prior to hematopoietic stem cell transplantation (HSCT). However, determinants of physical activity levels of HSCT recipients have not been investigated so far. The aim of this study was to determine the role of physical activity levels in HSCT recipients.

Patients and Methods: This prospective cross sectional study included 36 HSCT recipients. Physical activity levels were assessed using a multisensory armband device and pulmonary function tests. Functional exercise capacity was evaluated with 6-minute walking test (6MWT), respiratory muscle strength (MIP, MEP) with mouth pressure device, peripheral muscles strength with dynamometer, and dyspnea with Modified Medical Research Council (MMRC) dyspnea scale. Correlations of exercise capacity parameters were done with the grade of cardiac and pulmonary toxicity, febrile neutropenia, and transplant related mortality (TRM).

Results: All HSCT recipients were inactive (<3.0 METs) according to daily average METs (1.26±0.18 METs) and