

area, however, the risk of underdosing and its contribution to relapse is unknown. We sought to establish a standard of practice for dose adjusting chemotherapy in obese patients at our center which would maximize treatment without excessive toxicity or underdosing. A survey of practices of dose adjustment by pharmacists at 10 transplant centers was undertaken, as well as a review of more than 25 publications related to transplantation/obesity/and dose adjustment of chemotherapy. Four centers adjusted all drugs using the formula of ideal body weight (IBW) + [(actual body weight - IBW) x 25 or 40%]. Four centers used the same 25 or 40% adjustment only for obese patients (>20-30% IBW). One center used actual weight or IBW, whichever was less, without other adjustment. The last center used IBW + 10% of IBW for dosing, if the difference between actual and IBW was >50 lbs. None of these institutions addressed the individual drugs physiochemical properties such as lipophilicity. The literature review revealed no consensus beyond the practice of dose adjusting for actual body weight $\geq 120\%$ IBW. With the increasing number of overweight patients undergoing HSCT, and the limited pharmacokinetic data available on high dose chemotherapy in overweight patients, studies are needed to establish a standard approach.

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MID-LEVEL PRACTITIONER-PHYSICIAN COLLABORATION IN PEDIATRIC HSCT PROGRAMS

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Mid-level practitioners (MLP's) are utilized in the inpatient and ambulatory care settings in many pediatric HSCT programs. While strict guidelines exist surrounding the training of resident physicians and fellows, practice guidelines for MLP's are less well defined and vary by state or provincial regulations. In an effort to enhance the MLP-Physician collaborative relationship, we designed a brief survey to determine how MLP's and physicians perceive the MLP-Physician relationship. On-line surveys were sent to 75 Pediatric Blood and Marrow Transplant Consortium centers. Physicians and MLP's received nearly identical surveys; only the syntax was altered to reflect that the response was MLP opinion or physician perception. Thirty-six MLP's and 25 physicians participated in the survey.

The survey asked the MLP's and physicians to define the MLP clinical role. Results showed that physicians had an excellent understanding of this. The physicians acknowledged that the MLP's play a role in resident/fellow and nursing education.

Table 1 shows that there was significant agreement between MLP's and physicians with respect to autonomy, scope of practice, communication, and feedback. Both MLP's and physicians felt that MLP's were not compensated fairly. Physicians seem to underestimate the MLP workload and do not fully appreciate the physical and emotional demands of the MLP role.

There were also misperceptions about how MLP's spent their time. For instance, only 28.6% had protected office time, yet 56% of physicians thought their MLP's did have this. A majority of physicians (60%) stated that they had formal sessions with their MLP to discuss clinical situations and conduct chart reviews/audits. However, only 38.2% of MLP's reported that this actually occurred. Most physicians stated that MLP's should attend conferences and encourage the MLP's to publish. MLP's concurred with this assessment.

This initial survey suggests that MLP's and physicians have a strong collaborative relationship. There responses show that physicians and MLP's need to develop strategies for regular structured feedback. If publishing manuscripts, conducting research or taking leadership roles in teaching are desired, than more protected time needs to be provided to the MLP. Physicians should also recognize that there is a significant physical and emotional aspect to the MLP role. This survey will provide a foundation for future research into optimizing the MLP-Physician collaboration.

MLP-Physician Perceptions

	MLP*	Physician*
Appt Autonomy	82.3	86.4
Appt Practice Scope	94.1	86.9
Effective Communication with Physician	82.4	90
Fairly Compensated	64.7	57.1
Mechanism for Prof Development	58.8	61.1
Appt Amount of Supervision	97.1	85
Appt Amount of Feedback	73.5	76.2
Tolerable Workload	61.8	80.9
Tolerable Emotional Demands	76.5	95.5

* Percentage Who Agree.

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ALGORITHM FOR NURSING IMPLEMENTATION OF A RISK ADAPTED APPROACH (RAA) TO STEM CELL MOBILIZATION UTILIZING MOZOBIL (PLERIXAFOR)

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Autologous stem cell (SC) transplant is an accepted treatment modality for non-Hodgkin's Lymphoma (NHL) and Multiple Myeloma (MM). One eligibility requirement to proceed to high dose chemotherapy with (SC) rescue is securing adequate SCs ($2.0 \times 10(6)$ CD34+ cells/kg weight) prior to ablative therapy. Ability to mobilize SCs is unpredictable. For the pt unable to mobilize SCs with GCSF alone, treatment options become limited. Plerixafor, recently FDA approved CXCR4 inhibitor, in combination with GCSF, is proven to more effectively mobilize SCs than GCSF alone, allowing pts to receive HD chemotherapy and SC rescue.

The high cost of Plerixafor resulted in the Mayo Clinic - Rochester BMT program implementing a RAA of the medication rather than upfront use.

Pts were separated into two groups. Pts who previously failed (PF) to mobilize SCs received upfront use of Plerixafor in combination with GCSF. GCSF began the morning of Day 1. Plerixafor was introduced the evening of Day 4. SC harvesting began the morning of Day 5. Collections continued until the pt reached target goal, or, collections were discontinued if two consecutive harvest yields were $<0.5 \times 10(6)$ CD34+ cells/kg weight.

First time mobilizer criteria for initiating Plerixafor was based on Day 5 peripheral blood CD34+ (pCD34) evaluation and collection results. If pCD34 was inadequate on Day 5, Plerixafor was started that evening and collection Day 6. If harvesting yield was <0.5 or dropped to $<0.5 \times 10(6)$ CD34+, Plerixafor was instituted. Evaluation of the RAA after 6 months resulted in updates to the approach. If pCD34 was inadequate on Day 4, Day 1 harvesting yield <1.5 or yield dropped to $<0.5 \times 10(6)$ CD34+, Plerixafor was added.

Algorithms were created and revised by nurses, approved by physicians, for nursing implementation of this RAA (Figure 1), which continue to guide order creation and pt education.

Figure 1: Implementation of Plerixafor in Planned G-CSF Priming for First Attempt at Stem Cell Mobilization and Harvesting

Begin GCSF (4 day prime)	Check pCD34, Day 4, continue GCSF	
Goal of Colleciton	Single Transplant	Multiple Transplants
	pCD34 > 10	pCD34 > 20
Apheresis	Yield > 1.5 x 10(6) CD34+ cells/kg	
If Yes	Collect to Goal or yield < 0.5 x 10(6) CD34+ cells/kg x2 days	
If No and not receiving Plerixafor	Add Plerixafor QPM, apheresis next AM	
	Discuss results with MD	

This is to be a figure of an algorithm and does not fit into table form.