A REVIEW OF DONOR LYMPHOCYTE INFUSIONS USED IN NON-MYE-LOABLATIVE, T-CELL DEPLETED, ALLOGENIC STEM CELL TRANSPLANTS IN ADULTS

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Allogeneic stem cell transplantation has been the cornerstone in long-term survival for many hematologic malignancies. Unfortunately, the myeloablative chemotherapy regimens can often be too rigorous for some patients. Non-myeloablative allogeneic stem cell transplantation is a relatively new concept in cancer treatment that can offer a potential benefit with less toxicity to patients who would not otherwise qualify for myeloablative treatment. The non-myeloablative preparative regimen is less toxic to the patient who can then benefit from the graft versus malignancy effect that the allogeneic stem cells can provide. Donor lymphocyte infusions (DLI) are often given after transplantation to boost donor engraftment or to treat residual disease but can be associated with an increased risk of graft versus host disease. When dosed correctly and at the appropriate time following the transplant, DLI can be crucial in achieving 100% donor engraftment with minimal risk.

This poster will review DLI dosages and associated toxicities in 37 adult patients in a clinical trial using a non-myeloablative preparative regimen followed by allogeneic transplant and post transplant DLI. Developing a standard for dosing and transfusing DLI with minimal risk provides a unique challenge to our entire health care team and is an area that needs further research.

FUTURE FUNGAL FIGHTERS

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Blood and Marrow Transplantation (BMT) patients are very susceptible to infections particularly of a fungal source. Invasive fungal infections carry a high morbidity and mortality rate. Clinicians are now taking a new approach to treat fungal infections due to recurrence, occurrence of resistant infections, and increasing risk factors of transmission of infection in susceptible hosts especially those patients with hematological disease or on immunosuppressive therapy. Most common fungal pathogens are of the Candida species and Aspergillus species. Antifungal treatment is given prior to and post BMT. Traditional treatment of choice to prevent fungal infection in BMT recipients is Fluconazole or Itraconazole. In the treatment of fungal infection, the chosen therapeutic option is Amphotericin B or its lipid formulation. The response to the current antifungal medications varies in patients. Monitoring of adverse reactions such as chills, fever, and anaphylaxis is also a priority; therefore premedications are necessary prior to the administration of Amphotericin B. Due to the effects these agents have on kidney and liver function, dosing of the medications is critical. Despite the current treatments, resistant infections are becoming a serious problem. In response to the problem of resistant fungal infections: combination therapy or newer agents like Voriconazole and Caspofungin are being used. Voriconazole and Caspofungin are less toxic on the kidneys and liver, premedications are not required, and thus better tolerated by BMT patients. A case study will be presented including prophylactic management as well as treatment of a BMT patient with fungal infection. Continued research is being done to determine the best uses of these agents alone or in combination therapy in order to better treat fungal infections in our BMT patients and decrease toxicities.

THE COMPLEXITY OF TRANSITIONING BLOOD AND MARROW PATIENTS FROM OUTPATIENT TO INPATIENT

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Transferring the blood and marrow transplant patient from the outpatient clinic to the inpatient setting in a large comprehensive cancer center, performing over 550 transplants a year, can be a challenging and complex process. During a collaborative review of this process, it was decided to focus on the admission procedure between these areas to assure seamless communication. The goal of this process was to provide a more consistent method of communicating information regarding the admission of a patient. The transplant team members identified the solution to be the creation of a designated admission folder. This folder is started for each patient being admitted, along with a checklist of required contents. The checklist is a document in which the outpatient staff verifies that the required contents are present in the folder. The checklist includes pre-transplant workup, chemotherapy orders, height and weight, psychosocial assessment by the social workers, copy of patient’s blood and informed consent, patient’s treatment plan and flowsheet including a complete disease history. The checklist is the key communication tool for staff and must be completed before the patient leaves the clinic to be admitted. The checklist is completed on the day of admission, and contents of the folder reviewed by the transplant physician. The pharmacist also uses the information in the folder to assist with writing the chemotherapy orders. The clinic nurse completes the checklist adding any comments or updates. The folder and checklist is then sent to the inpatient unit along with the patient medical record. The benefit to the inpatient unit is that all relevant documents are organized and placed in a designated folder, thereby, expediting order transcription and the general admission process. At the present time, the folder acts as a transition for the electronic medical records system, currently in the developmental stage. This folder and checklist creates a standard practice regarding the admission process in the Blood and Marrow Transplant clinic for the multidisciplinary team. A tool is being developed to audit the effectiveness of this new process.

TREATMENT PLANS FOR BLOOD AND MARROW TRANSPANTATION PATIENTS, THE COMMUNICATION LINK


Transferring patients through the Blood and Marrow Transplant (BMT) process requires seamless communication amongst various healthcare team members and clinical areas. The treatment plan is a documentation tool that details the treatment process and cell infusion for the patient. This document becomes a critical communication link between team members in the inpatient and outpatient clinical areas. Initially, the treatment plan was implemented as a tool to communicate the patients transplant therapy to the insurance company and the BMT clinical pharmacist. However, it has evolved into the main treatment communication tool amongst the multidisciplinary teams. Through its evolution the need became apparent to standardize the form, establish accountability for the team members, and develop a policy and procedure. A multidisciplinary task force was formed to discuss the current process, the purpose of the form, and the concerns related to patient safety in the administration of the correct therapy. This task force evaluated the process flow, established policy and procedure, standardized the form, and reversed the content of current treatment plans being utilized. Further development of this process will include the accessibility of the treatment plans in a central repository of the BMT database. This repository will allow read and print capabilities to any team member and the ability of designated team members to monitor and maintain the repository. As a result of this process, treatment plans are utilized as the communication link to ensure the patients plan of care is clear, accurate, documented, and approved by the attending physician. Also, this tool provides communication to all caregivers in the inpatient.