Trillium Gift of Life Network

# Donors with Monoclonal Gammopathy of Undetermined Significance (MGUS)

## What is MGUS?

- Monoclonal gammopathy of undetermined significance (MGUS) is a precancerous condition and the most common plasma cell disorder.
- Precancerous conditions are not yet cancer, but there is a chance these abnormal changes will eventually become cancer.
- Over a period of months or years, multiple myeloma, amyloidosis, lymphoma, Waldenstrom macroglobulinemia or chronic lymphocytic leukemia (CLL) may develop.
- In MGUS, abnormal plasma cells make one type of immunoglobulin (Ig) called an M-protein.

## Impact of MGUS on Organs

- MGUS patients with no evidence of end-organ damage are safe to be donors.
- 99% of MGUS patient do not exhibit end-organ damage, and MGUS is a benign condition in these cases.
- Further testing (full hematology work up (i.e. marrow + PET scan)) for donors with MGUS indicating end-organ damage may be indicated to rule out an active lymphoid or plasma cell malignancy.
- For organ transplant recipients, MGUS can be found in ~0.7% before transplantation and can develop in an additional ~0.5% of recipients during post-transplantation.

## MGUS and Organ Transplant

In recent years, there have been approximately 5 potential donors with MGUS referred to TGLN that did not move forward to donation and transplantation. There is little to no evidence on donor transmitted MGUS on organ transplantation. According to Health Canada regulations, donors with MGUS do not meet the criteria for Exceptional Distribution.

**Decision: Based on discussions with the TSP group and consultations with hematology experts, TGLN recommends the use of organs from donors with MGUS.**

**Approved by the Transplant Medical Group**

## Epidemiology of MGUS

**0.7%** in the general population

**0.3%** in adults under the age of 40

**3.2%** in adults over the age of 50

**5.3%** in adults over the age of 70

## References


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