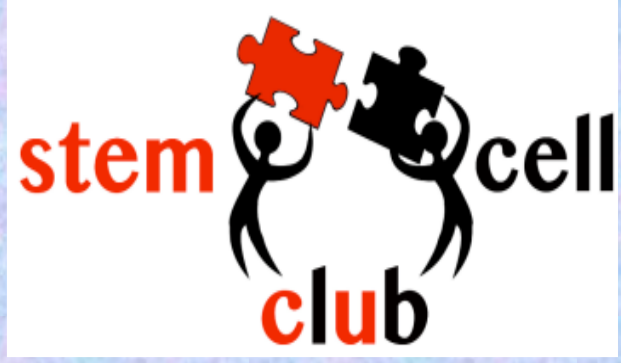


Redirecting Ineligible and Non-optimal Stem Cell Donors to Help in Other Ways

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Introduction

- Individuals are eligible to register as unrelated stem cell donors with a registry if they meet the registry's age criteria, are in good health, are willing to donate to anyone in need, and have healthcare coverage that could pay for the donation should they match to a patient
- The most needed donors are men, as male donors are associated with fewer patient transplant complications¹
- Males also tolerate donation better with fewer toxicities, have higher cell counts, and are deferred less than females²⁻⁵
- Recruitment efforts should be focussed to register eligible donors from the most-needed demographic groups, while ineligible and non-optimal donors should be redirected to help in other ways.
- This poster outlines evidence-based strategies and key messages to redirect ineligible and non-optimal donor groups, designed to mitigate emotion and outrage associated with donor deferral and ineligibility

Registrant Attribute

Over 35?

- **"As people age, their stem cells age too"**
- **"Studies have shown that patients have a better chance of surviving when the donor is younger"**
- **Older donors have a harder time donating than younger donors**

Female?

- **"Studies have shown that when the donor is male, the patient has less chance of complications"**
- **"Female donors have a more difficulties with donation than males"**
- **"Transplant physicians prefer male donors for their patients"**
- **Encourage women to donate cord blood stem cells if they have a child (where available)**

In poor general health?

- **"Donors need to be healthy, not just to protect the patient but also to protect themselves"**
- **Refer the registrant to the website wiki.wmda.info for disease-specific information regarding medical suitability**

Unwilling to donate to anyone in need?

- **Explain that donation is anonymous for both patient and donor**
- **Registrants must be willing to donate to anyone in need, anywhere in the world**

Lacking healthcare coverage?

- **"Health insurance coverage is required at time of donation to cover the cost of stem cell collection"**
- **Registrants from another country can search for a registry in their home country on bmdw.org**

Key messages which apply to everyone

- **"Sign up for blood donation if eligible"**
- **"Encourage your family and friends who are males ages 17-35 to register"**
- **Invite the registrant to volunteer at and help promote stem cell drives**

Rationale

- Kollman et al. (2016) found that use of donors age 32 and under significantly improved survival in transplant recipients¹
- Older donors experience more complications from donating (including persistent pain and serious toxicities from both marrow and peripheral blood stem cell donation)², and are more likely to be deferred³
- Kollman et al. (2016) found that the use of female donors with a history of pregnancy was associated with increased risk of the recipient developing the transplant complication chronic graft-vs-host disease¹
- Kollman et al. also found that a recipient's likelihood of neutrophil recovery was lower after transplantation from female donors¹
- Female donors are less likely than males to be able to donate the requested number of blood stem cells⁴, and are more likely to be deferred from donating³; A high stem cell dose is important as it may be associated with improved recipient hematopoietic recovery and survival⁵
- Stem cell donation generally causes more harm to female donors as demonstrated by a higher rate of acute toxicities, pain, fatigue, the need for a central venous catheter placement and prolonged hospitalization after PBSC or bone marrow collection^{2,6}
- In a survey of 38 Canadian transplant physicians, Gender was rated as the second most important donor characteristic when facilitating a match, after donor relatedness to the patient⁷
- Full guidelines for unrelated adult stem cell donor medical suitability are available from the World Marrow Donor Association⁸
- According to the World Marrow Donor Association's suggested procedures for informed consent for unrelated haematopoietic stem cell donors, registration of a donor implies a general offer to be available for any patient in need of a haematopoietic stem cell transplant anywhere in the world, irrespective of the patient's age, gender, nationality, creed or ethnicity⁹. As well, donors who are more committed (less ambivalent about donation) at time of recruitment are more likely to proceed with donation if asked¹⁰
- There are over 72 hematopoietic cell donor registries from 52 countries registered on bmdw.org
- Individuals who are not eligible or optimal stem cell donors may still be eligible to donate blood (e.g. individuals over age 35, women, individuals who lack healthcare coverage)
- Several studies in different ethnic groups have shown family approval to be perceived as influencing donation or serving as a barrier to donation¹¹⁻¹²
- A 2011 Italian pilot study showed that of 82 new donors surveyed at 20 donor centers, 41% had learned about stem cell donation through family members, friends, and acquaintances¹³

Conclusions

- In this presentation, evidence-based key messages are outlined to redirect ineligible and non-optimal donor groups to help in other ways
- This presentation equips recruiters with instructions on what to say to donors who may not be a good fit for the unrelated donor registry
- These key messages can be incorporated into recruiter staff and volunteer training, and can serve as a resource at stem cell drives

Questions for Discussion:

- Is there a level of ambivalence or willingness to donate below which registrants should be redirected?
- Should we establish a metric and minimum level of informed consent, below which registrants should be redirected?
- Males are clearly preferred, but what is the optimal ratio of males to females that we should aim for? What proportion of females should be deferred, if any?
- Should we continue to recruit women who have a history of pregnancy, given less optimal outcomes?¹
- Are specific subsets of females more optimal (i.e. females from more dramatically underrepresented ethnic groups?)

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