The Stem Cell Drive: A Model for Stem Cell Donor Recruitment

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Introduction:
Stem cell drives are an important method to educate, recruit, and register potential stem cell donors. However, to date, no guidelines have been published to recommend a process for stem cell donor recruitment at drives.

The Stem Cell Club is a federal non-profit organization in Canada that runs stem cell drives for the OneMatch Stem Cell and Marrow Network of the Canadian Blood Services.

To date, we have recruited over 5025 stem cell donors at dozens of drives across Canada.

Here, we describe our model for running a stem cell drive. Our approach to stem cell drive design is evidence-based and includes five stations: pre-screening, informed consent, registration, swabbing, and reconciliation.

Stem Cell Drive Stations

1. Prescreening
2. Informed Consent
3. Registration
4. Swabbing
5. Reconciliation

At Every Station:
- Confidentiality
- Privacy
- Quality Control

Elements Common To Each Station:
1) Quality control - Our drives feature a checklist approach to error checking procedures. This includes ensuring that all parts of the registration form are correctly completed, that the correct buccal swabbing technique is employed, and that the swab kits are well put together.
2) Informed consent: Well informed registrants are more likely to follow through with a donation when contacted.2 Our informed consent process follows World Marrow Donor Association suggested procedures.1
3) Confidentiality and Privacy: At any station, the registrant may make personal queries to volunteers who are trained not to share the information provided to them. In addition, the registration form asks for personal and health information that must be kept confidential.

Prescreening
Approach the most needed stem cell donors according to the literature: young and ethnically-diverse males.1-7
Discuss with potential registrants:
1) Brief overview of stem cells and the need for more registrants in the network
2) Stem cell donation principles: DNA typing and matching and diseases treated by a transplant
Redirect ineligible and non-optimal donors to help in other ways (i.e. blood donation, cord blood donation, financial donation, spreading awareness)

Informed Consent
Hand registers a information pamphlet
Explain the procedure diagrams for peripheral blood stem cell and bone marrow donation
Educate registrants about:
1) Peripheral Blood Stem Cell Donation and Bone Marrow Stem Cell Donation
2) The risks involved in both1, 2
3) Donor and patient anonymity
4) The registrant’s right to withdraw

Registration
Guide registrants to complete the registration form which includes:
1. Contact and demographic information
2. Health screening questionnaire
3. A consent form to sign
Error-check the forms
Provide registrants with information about data collection, storage, usage and confidentiality.

Swabbing
Perform an informed consent checkpoint by asking:
1. What happens if you are a match?
2. What are the risks involved in donating stem cells?
3. What happens if you say no?
Affix barcode stickers onto each swab kit component (See Figure 5):
1. Swabs
2. Back of Envelope
3. Consent Form
Supervise the swabbing procedure to ensure correct technique

Reconciliation
Complete a final verification of informed consent and answer any final questions.
Complete a final error check of all swab kit components including the registration form and correct sticker placement.
Deliver final information:
1) Registrants need to update their health/contact information as applicable
2) Registrants will remain on the registry until age 60
3) Registrants may be contacted if there are any questions about their registration form
Process swab kits and prepare them for shipping

References:
1. Switzer et al. Transplantation. 2003;75(9):1517-23
3. Rosenmayer et al. Bone Marrow Transplant. 2003;31(7):539-45
11. Quillen et al. Transfusion 2009;49(3):513-518
12. Miller et al. BBMT. 2008; 14:29-36

Figure 7: Reconciliation and Shipping Forms