

Type of stem cell graft for SAA – BM is better?

Dr Mike du Toit

Constantiaberg Transplant unit Cape Town.



SAA: BM or PBSC as source of graft?

- In the wonderful world of G-CSF stimulated BM:-
- PBSCC have become the preferred practical source of stem cells for most centres and situations requiring a SCT.
- Is this always the correct option?
- +/- reports that all is not well in PBSCC land!

(EBMT & CIBMTR)



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Brief Report

- **Worse outcome and more chronic GVHD with peripheral blood progenitor cells than bone marrow in HLA-matched sibling donor transplants for young patients with severe acquired aplastic anemia**

• **Blood: 2007;110:1397-1400**



SAA: BM or PBSC as source of graft?

- > 2 decades of steady improvement in OS for BMT recipients.
- SAA -> Tx as preferred Rx if MSD available.
- SR for MSD Tx +/- 80%
- Graft failure +/- 10%

- Increased likelihood of GVHD with PBSC grafts.
- Concern re incr use of PBSC as graft source: 60% of Tx >2000.
- Similar change noted in Leuk Tx : incr GVHD noted but offset by GvL effect -> lower relapse rates and improved OS.
- However no perceived benefit from GVHD in SAA Tx.



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- 2007 EBMT/CIBMTR Review of outcomes from MSD Tx for SAA.
- Looked at MSD Tx results in PBPC pts 134 } 1995 - 2003
- BM pts 558 } <20 vs >20yrs

- Trends: PBPC: incr Tx in later yrs/ incr tt Tx.

	<u>PBPC</u>	<u>BM</u>
• By 2000 -2003 Pts < 20	60%	34%
• > 20	64%	31%



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- Outcomes for GVHD:

		<i>PBPC</i>	<i>BM</i>	
• Acute Gd ii-iv	< 20	14%	10%	
• (Dy 100)	> 20	19%	20%	
• Chr GVHD	< 20	27%	12%	rr 2.8
•	> 20	30%	31%	

- Diff in outcome reflected in Younger > Older pts.

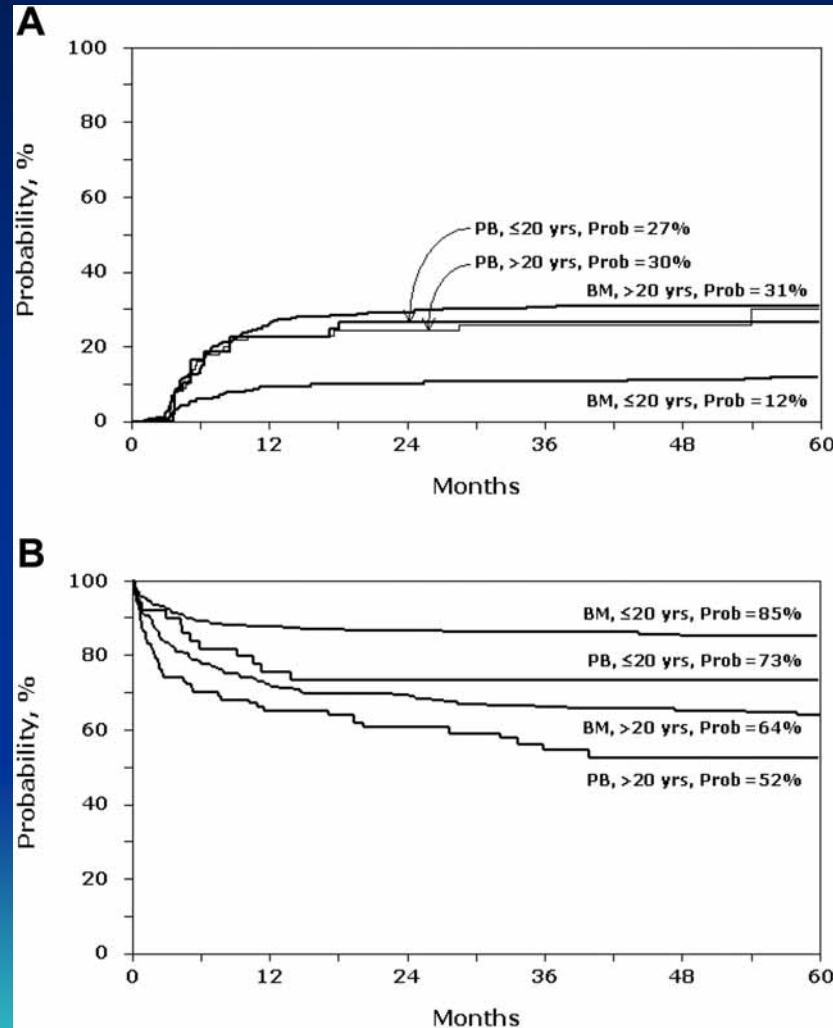


SAA: Results of BM vs PB as source of graft.

A: GVHD

B: Survival

Chr GVHD



Survival

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- Other factors affecting mortality (OS) rates:
- Performance status.
- Time to Transplant.
- Older pts (>20): 5yr OS rate 64% for BM } NSS but BM results
- 52% for PBPC.} ? improve with time.
- (Locasciulli)



SAA: BM or PBSC as source of graft?

- Increased use of PBPC with MSD in SAA appears to be associated with more GVHD in young patients and decreased OS.
- Thus it appears that a so called improvement in technology has brought about a decrease in OS in younger patients with SAA.



Advice for a young lady who has lost her Bone Marrow and needs a Transplant on Valentines day.

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- Roses are red
- Violets are blue
- PB stem cells for some
- But its BM for you!

