Establishing a Transplant Program in Emerging Countries – Part 2 Roundtable Discussion: Getting started and containing cost

WBMT/WHO Workshop

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Discussion: Establishment of a Transplant Center and Cost Considerations

Panelists	Country
Salman Adil	Pakistan
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Panel Discussion

Part 1 - Starting a Transplant Program

- Starting with an Auto or Allo
- Discuss **challenges** and **priorities**
- Discuss potential **solutions** to overcome these challenges.

Part 2 – Evolution of a program: structured growth plan.

- Are all transplant program components in place?
- When to consider alternative donor transplants? If so which type?

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Auto vs. Allo HCT

Auto

- Lower toxicity
- Cryopreservation
- Mostly hematologic malignancies
- Disease control

Allo

- Higher toxicity
- More resources
- Malignant and non-malignant diseases
- Curative intent

Getting Started Considerations: Program Check List

General	Elements
Patient population	Age, diseases, referral base
Goals of therapy	Curative or disease control
Trained staff	Team or only MDs
Facility	Dedicated unit or shared unit
Cell processing	Dedicated or blood bank services; cryopreservation
Ancillary services	Radiology, clinical lab, microbiology, critical care, consultants, social services
HLA typing	Available or contracted from other facilities
Medication availability	Antimicrobials, immunosuppressants

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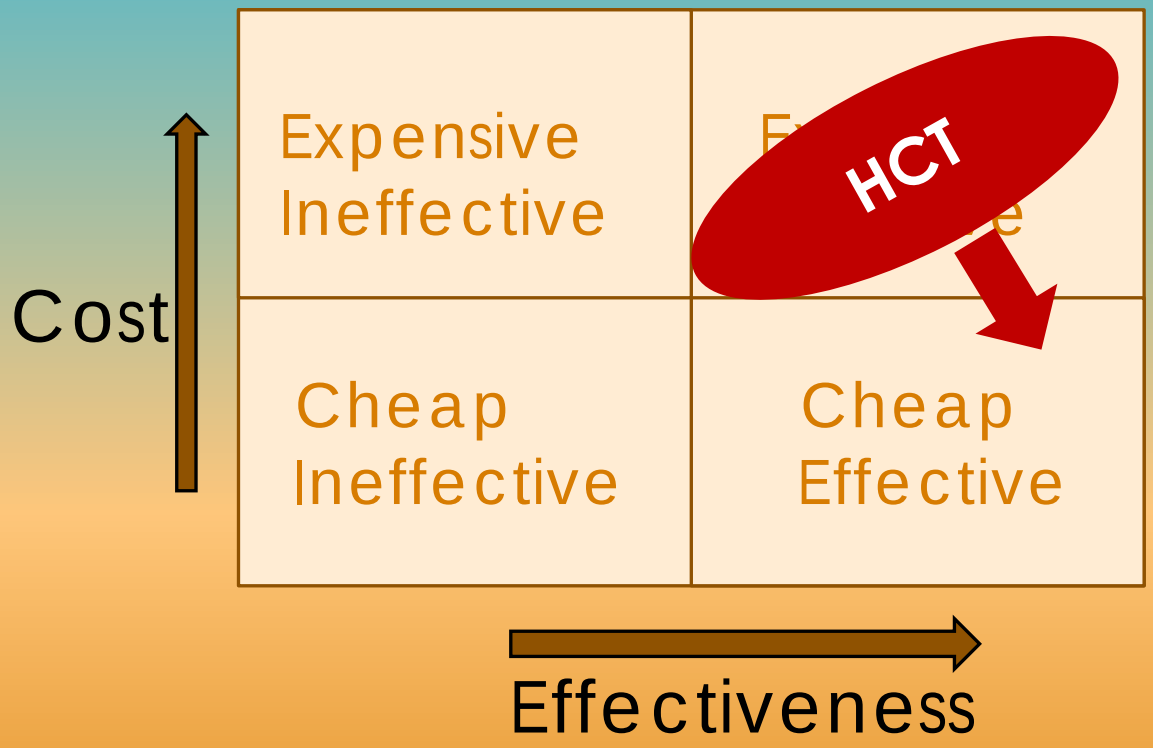
Patient and Disease

- What is the target population: peds, adults or both
- What is the predominant disease: Malignant vs. non-malignant

	Auto	Allo
Diseases	Malignancies and autoimmune diseases	Malignant and non-malignant diseases
Goals of Therapy	Mostly disease control	Curative

Cost Effectiveness

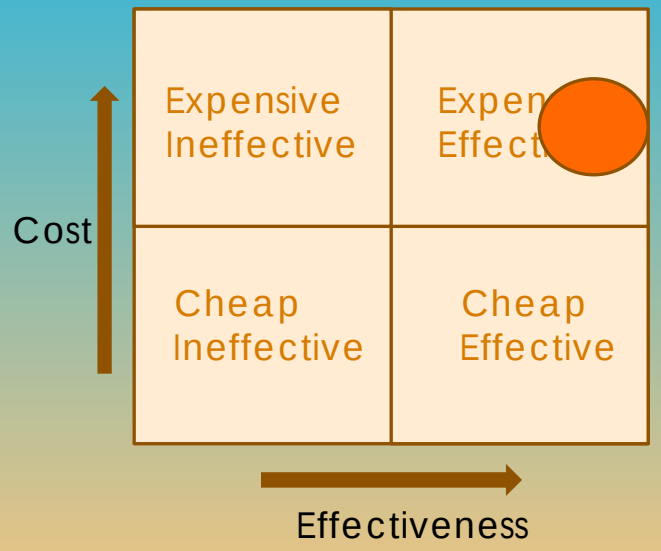


Scenario

Establish a program with focus in non-malignant diseases

Considerations:

- Sickle cell disease or thalassemia vs. aplastic anemia
- Adult vs. pediatric
- Dedicated unit vs. shared



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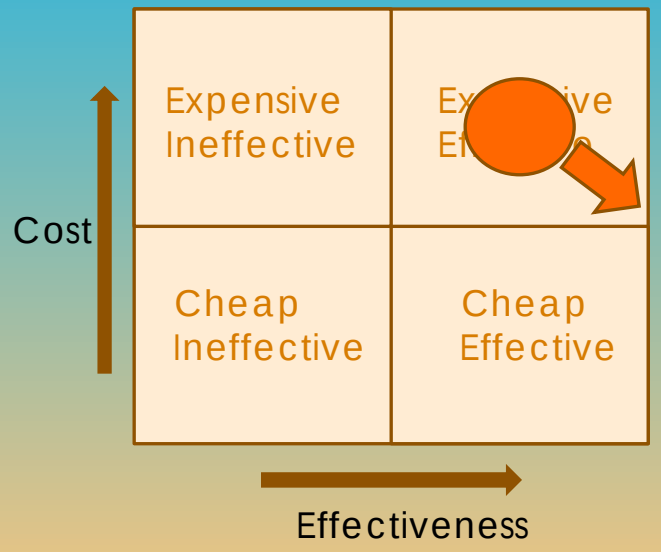
Scenario

Establish an allo program with focus in malignant diseases

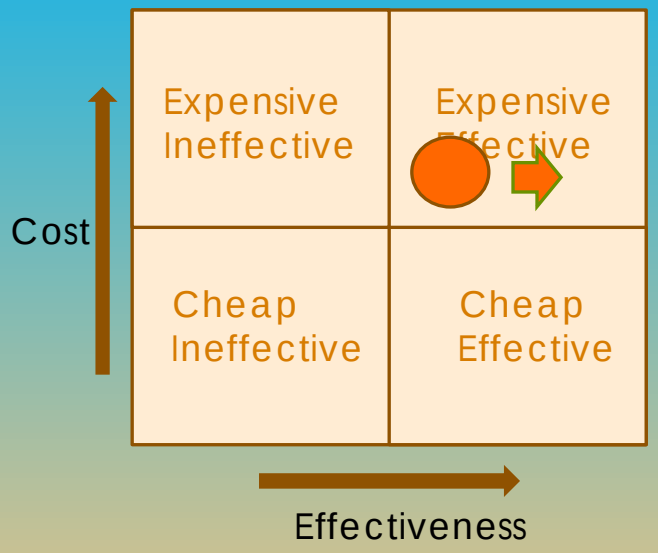
Considerations:

- CML and availability of TKIs
- Children with ALL
- Adults with AML and timing to transplantation



Scenario

Establish a autologous program for treatment of hematologic malignancies



Considerations:

- Lack of availability of Rituximab or anti-myeloma agents
- Team involved with transplant and non- transplant therapy vs. not
- AML induction followed by an auto instead of consolidation

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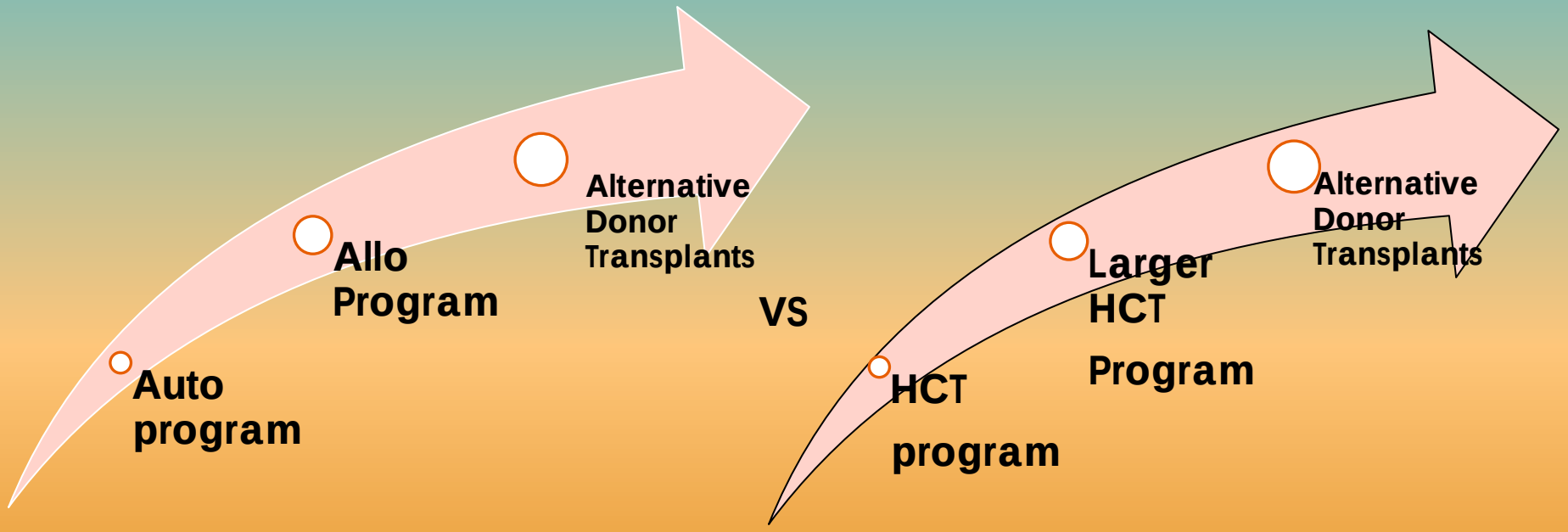
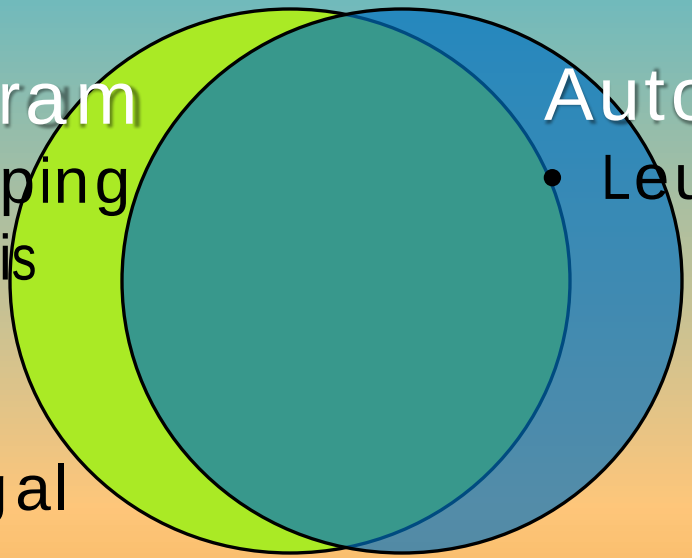
Expansion of a Transplant Program



Combined Auto and Allo Program – Minimum Requirements

Allogeneic Program

- Access to HLA typing
- GVHD prophylaxis
- CNI monitoring
- CMV monitoring
- Antiviral/antifungal agents



Autologous Program

- Leukopheresis

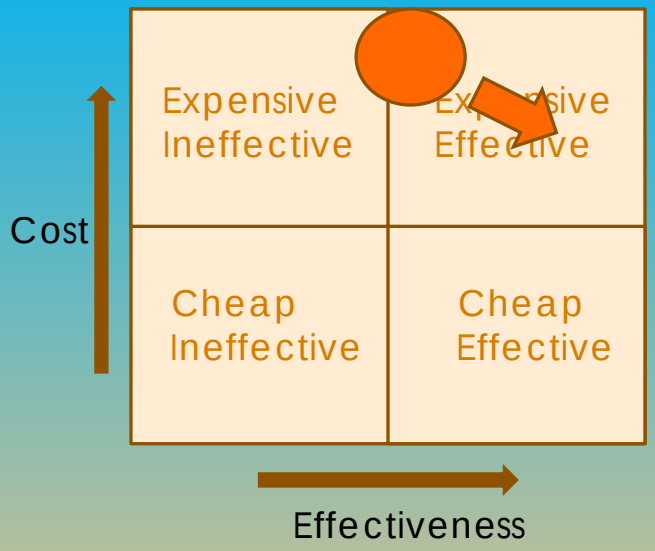
Overlap Components

Overlap Components for HCT Program

Domain	Requirements for Transplant Center Development
Blood Banking	Availability of red blood and platelets for transfusion
	Availability of leukocyte-reduced and irradiated blood products
	ABO typing
	Apheresis Service
Infrastructure	Institution support
	Tertiary care center – ICU and ER
	Cell Processing laboratory
Laboratory	Cell counter and chemistry laboratory
Microbiology	Basic bacterial and fungal cultures
	Serology for CMV, Hepatitis, HIV, HSV, syphilis & HTLV1

Domain	Requirements for Transplant Center Development
Pharmacy	Access to chemotherapy & antiemetics
	Access to broad spectrum antibiotics
	Access to antiviral and antifungal medication for prophylaxis and treatment
Radiology	Standard X-ray and CT scanner
Other Ancillary Studies	Placement of central line access
Staff	Medical Director BMT trained hematologist/oncologists or Immunologists with >6 months of training in a BMT unit
	Nursing with hematology/oncology experience or trained on handling chemotherapy and infection control
	Pharmacist with experience in handling chemotherapy
Quality Management	Available clinical protocols or guidelines for standardization of practices
	Data collection strategies

Scenario



Alternative donor transplant

Considerations:

- Minimal number of allo transplants per year?
- Cord, URD or Haplos?
- Diseases indications: malignant vs. non-malignant

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Additional Points: considerations

Training

- Twinning and cross-training with a larger center.

Shared Resources

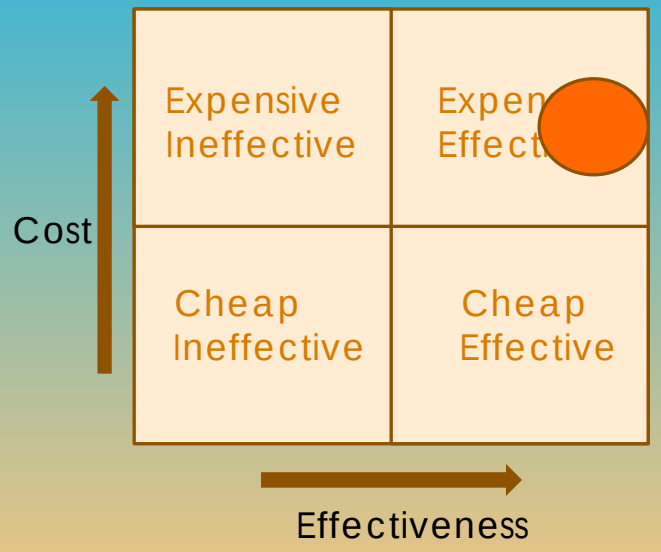
- Shared HLA typing services.
- Donor selection consulting
- Blood Banking and Cell processing laboratory

Intensive social services

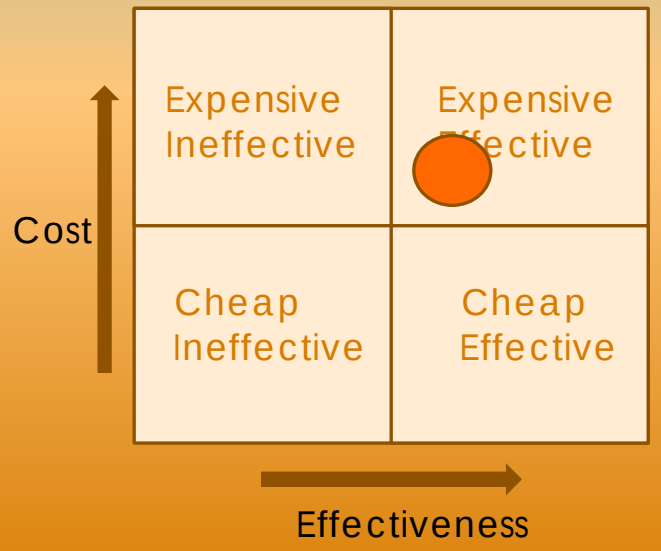
- Transplant program linked foundations

Scenario

- Establish a program with focus in children with non-malignant diseases



- Establish a autologous program for treatment of hematologic malignancies



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- 25 y/o woman with acute myeloid leukemia with a sibling donor
- *Considerations:*
  - Normal vs. poor risk cytogenetics
  - No sibling donor and morphologic remission with low blood counts
  - Patient is 15 y/o and with Ph+ ALL

Prioritizations: Optimal patients but limited infrastructure

- 55 y/o man with multiple myeloma
- 24 y/o woman with AML in second remission with a sibling donor
- 4 y/o boy with beta Thalassemia with a matched umbilical cord unit
- 40 y/o man with CML (no access to tyrosine kinase inhibitors) in chronic phase with 12 months from diagnosis and with a male sibling donor.