



HSCT Program in Qatar

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State of Qatar

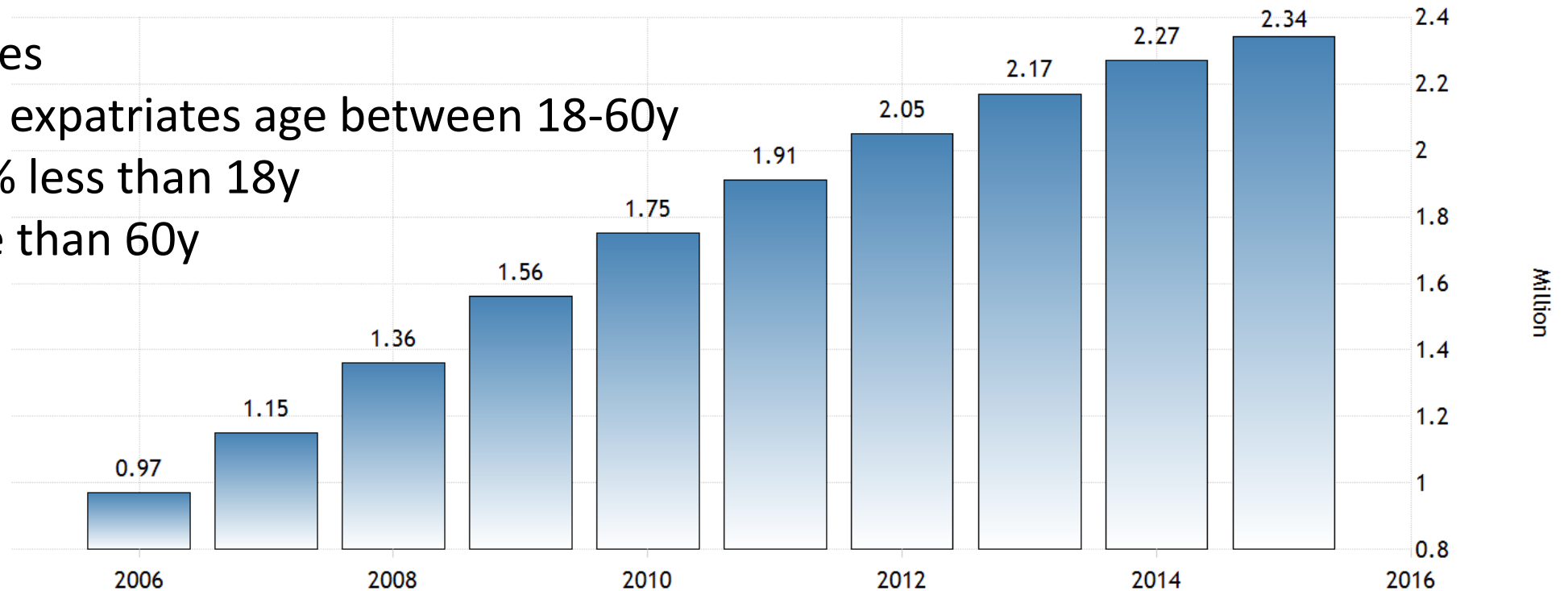
- State of Qatar is a small peninsula located in Arabian Gulf
- The surface area is 11,500 KM²



Population

QATAR POPULATION

- 75% males
- Majority expatriates age between 18-60y
- Only 24% less than 18y
- 3% more than 60y

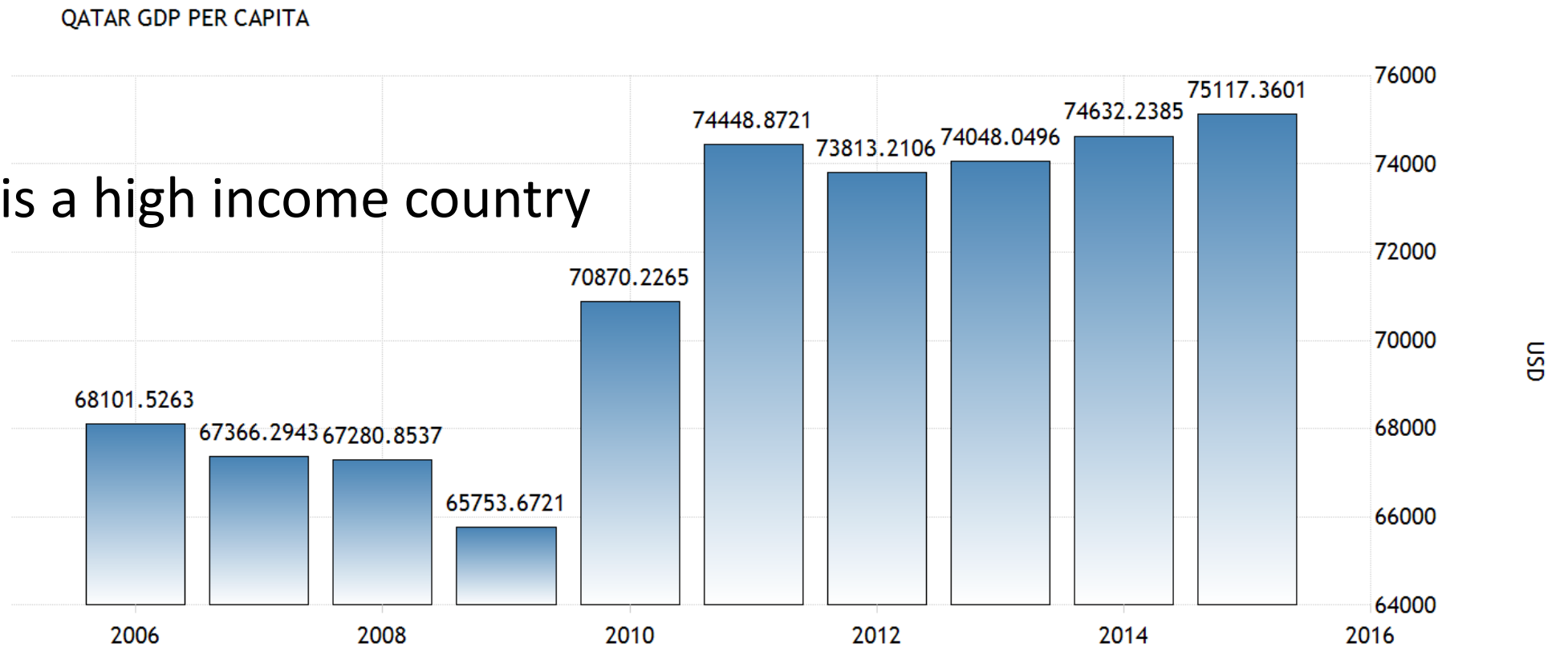


SOURCE: WWW.TRADINGECONOMICS.COM | QATAR STATISTICS AUTHORITY



GDP Per Capita

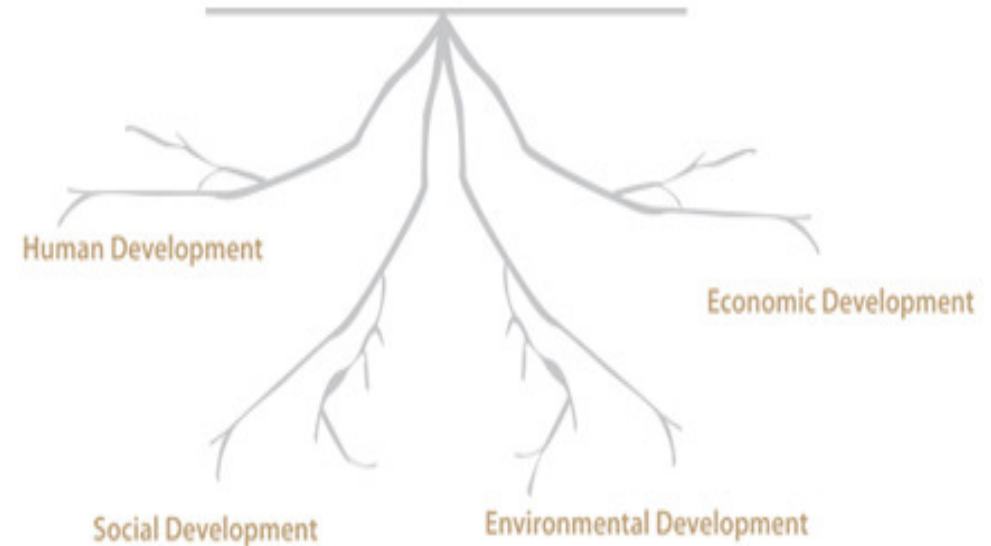
- Qatar is a high income country



SOURCE: WWW.TRADINGECONOMICS.COM | WORLD BANK

Qatar National Vision 2030

- Launched in 2005 by HH
- Aim is to transform Qatar into an advanced country by 2030
- Providing a high standard of living for its people and for generation to come
- It rests on 4 pillars





Human Development

- Education
- Workforce
- Health: ensure a healthy population through a comprehensive world class health care system



National Cancer Program

- Launched in 2011 by HH
- Aim is to reduce cancer incidence in the country
- Provide cancer care at standard of excellence



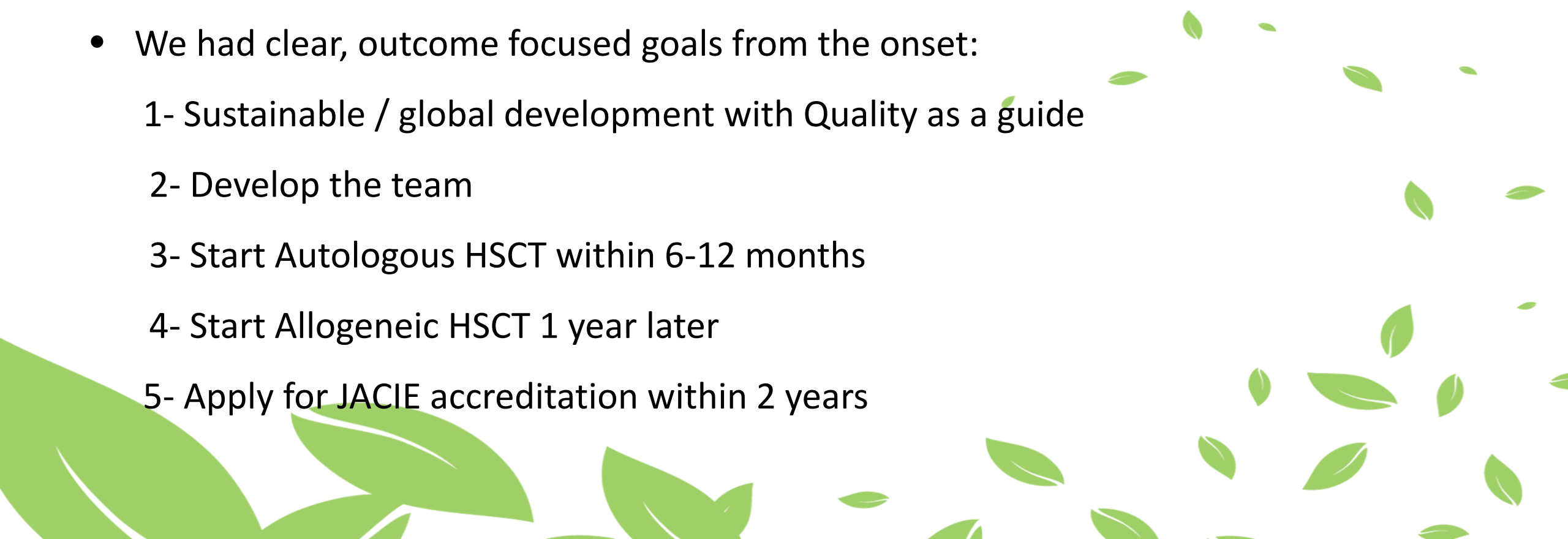
Recommendations

1. Education and Understanding
2. Prevention
3. Early Detection
4. Rapid and Definitive diagnosis
5. Treatment
6. Ongoing Care
7. Measuring Performance
8. Workforce
9. Research





Development of HSCT Program I

- In October 2014 – The HSCT Program Project was initiated
 - Aim to provide comprehensive cancer care for patients in Qatar
 - We had clear, outcome focused goals from the onset:
 - 1- Sustainable / global development with Quality as a guide
 - 2- Develop the team
 - 3- Start Autologous HSCT within 6-12 months
 - 4- Start Allogeneic HSCT 1 year later
 - 5- Apply for JACIE accreditation within 2 years
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Development of HSCT Program II

- 6- Establish constructive collaborations
- 7- Implement HSCT associated research
- 8- Promote and drive awareness and education
- 9- Establish credibility and state-of-the-art service



HSCT Facility

- Clinical-5 HEPA filtered room
- Collection-Transfusion Medicine
- Processing and cryopreservation-CTL





- 45 Qatari pts are candidate for SCT every year
- Sent abroad for the procedure
- The no. is doubled for expatriates
- No access or do the procedure in their countries

(Qatari patients)				
Designation	Allogenic BMT	Autologus SCT	Over all	Percent
Pediatric hematology-oncology	4	2	6	13%
Pediatric genetic disorder	5	0	5	11%
Adult benign hematology	13	0	13	29%
Adult malignant hematology	9	12	21	47%
TOTAL	31	14	45	100%
Percent	69%	31%	100%	



Patients' and disease characteristics

- First harvesting in June 2015
- First transplant procedure in October 2015

	No	% or range
No of patients	16	
No of Transplants	17	
Patient's age(yr), median (range)	47	31 - 57
Patient's sex (male/female)	10 / 6	
ECOG PS		
0 - 1	12	75
≥ 2	4	25
Diagnosis		
Multiple Myeloma	10	63
Refractory Plasmacytoma	2	12.5
Relapsed DLBC	2	12.5
Relapsed MCL	1	6
Refractory Hodgkin's Lymphoma	1	6

Patients' and disease characteristics

	No	% or range
Disease status at transplant		
CR	9	56
VGPR/PR	5	31
Stable/Progressive Disease	2	13
Comorbidities		
Renal Impairment/Failure	3	19
Cardiac	2	12
Mobilization regimen		
Cyclophosphamide + G-CSF	12	75
R-DHAP	3	19
IGEV	1	6
Conditioning Regimens / no of transplants		
High dose melphalan	13	76
BEAM	4	24

Results

	No	% or range
No of patients / No of Transplants	16 / 17	
No of Harvests / patient, median (range)	1	1 – 3
No of collected CD34+ cells/kg, median (range)	10.5	6.7 – 16
No of CD34+ cell dose / Transplant, median (range)	7	4.2 – 12
ANC recovery (days), median (range)	11	10 - 12
Platelet recovery (days), median (range)	15	9 - 24
Febrile Neutropenia / no of transplants		
Fever of unknown origin	8 /17	47
Microbiologically/Clinically proven infection	4 /17	24
Transplant Related Toxicities / no of transplants		
Mucositis grade 3-4	8/17	47
Diarrhea \geq grade 3	3/17	18
Other	3/17	18

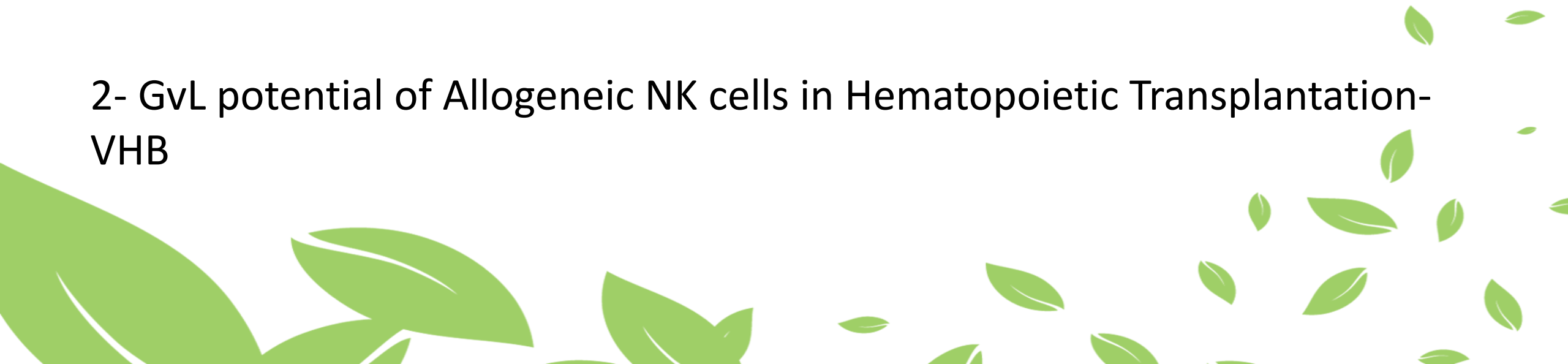
Results

	No	% or range
Follow up (months), median (range)	6	2 – 14
Response / no of evaluable patients		
CR	8/13	61
VGPR/ PR	4/13	31
SD	1/13	8
No of Relapses	1	6
Survival		
alive	16	100
NRM at Day100	0	



Research in NCCCR

- NCCCR has an active Translational Cancer Research Facility (TRI)
 - 1- X-vivo Expansion of virus specific T cells (VSTs) to be used as adoptive T cell therapy in Patients with leukemia receiving allogeneic hematopoietic stem cell transplantation
 - 2- GvL potential of Allogeneic NK cells in Hematopoietic Transplantation-VHB





Affiliations and Data Reporting

- Eastern Mediterranean Blood and Marrow Transplantation group (EMBMt)
- European Society of Blood a Marrow Transplantation (EBMT)
- Data Reporting : EBMT and CIBMTR Registries



Current Activities

- Leadership Meetings
- Structured Quality Meeting
- Transplant Planning meeting
- CPD Accredited Training and education
- CPD Accredited Literature review
- Special Lecture Series in HSCT 2015 and 2016
- Teleconference Allogeneic Meeting with our International Partners
- Linked into Joint HSCT MDT with Oxford University
- Review SOPs and protocols

Future Plan

- Start Allogeneic program soon
- Donor Registry (working with local, regional and international collaborators)
- Continue state of the art autologous HSCT service
- Promote continuous education & research
- Apply for JACIE Accreditation post initiation of allogeneic program
- Cancer Clinical Trials Unit has been established for participation in local and international clinical trials



Summary

- HSCT program is the only one in Qatar
- It is self-sufficient with all 3 core components (collection, processing and clinical)
- Autologous program up and running well
- This the first year anniversary, was very successful with the accomplishment of 17 transplants
- Team is expanding and ready to start the Allogeneic SCT soon



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Thank You