Challenges and Recommendations for Providing Cancer Prevention and Treatment to Refugees in Lebanon and Jordan

48th MEMA: First Global Congress in Conflict Medicine
American University of Beirut
May 11-14, 2017

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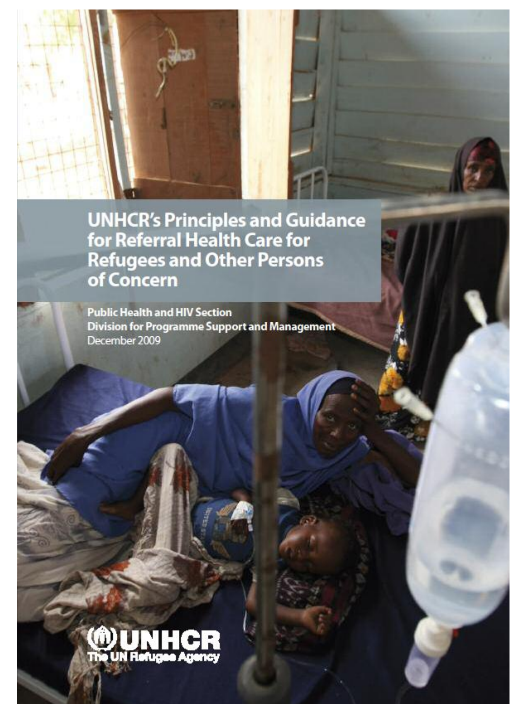
Urban Health Care Strategy

- Avoid parallel services and integrate into national health system when feasible
- Subsidize access to health care if necessary
- Manage referrals:
  - Referral Guideline
  - Standard Operating Procedures
    - Limit number and types of referral hospitals
    - Limit types of interventions
    - Focus on life-saving interventions
- Establish Exceptional Care Committees (ECCs) to adjudicate on complex and costly interventions



Exceptional Care Committees

- Provide decisions on life-saving procedures or treatment to refugees
- Improves financial accountability and medical decision-making
  - Control mechanism for spending on costly procedures
  - ECC panel members are medical professionals
  - Decision criteria: Prognosis – then cost, then vulnerability

Cancer in refugees in Jordan and Syria between 2009 and 2012: challenges and the way forward in humanitarian emergencies

Paul Spiegel, Adam Khalifa, Farrah J Mateen

Treatment of non-communicable diseases such as cancer in refugees is neglected in low-income and middle-income countries, but is of increasing importance because the number of refugees is growing. The UNHCR, through exceptional care committees (ECCs), has developed standard operating procedures to address expensive medical treatment for refugees in host countries, to decide on eligibility and amount of payment. We present data from funding applications for cancer treatments for refugees in Jordan between 2010 and 2012, and in Syria between 2009 and 2011. Cancer in refugees causes a substantial burden on the health systems of the host countries. Recommendations to improve prevention and treatment include improvement of health systems through standard operating procedures and innovative financing schemes, balance of primary and emergency care with expensive referral care, development of electronic cancer registries, and securement of sustainable funding sources. Analysis of cancer care in low-income refugee settings, particularly in sub-Saharan Africa, is needed to inform future responses.

Lancet Oncol 2014; 15: e290–97

See Online for an audio interview with Paul Spiegel

Office of the United Nations High Commissioner for Refugees, Geneva, Switzerland (P Spiegel MD); Office of the United Nations High Commissioner for Refugees, Damascus, Syria (A Khalifa MD); Department of Neurology, Massachusetts General

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Demographics of Cancer Patients 2016

	2016			2012
	Lebanon	Jordan		Jordan
N (683)	281	402		138
F:M ratio	1.08	2.37		1.01
Age (yrs)				
Mean	30 (0-82)	42 (0-84)		51
<18	35%	9%		8%*
>=18	65%	91%		92%*
* <20 yrs; >=20 yrs				
Origin: Syrian	98%	100%		31%
Iraqi	2%	0%		64%
Other	<1%	0%		5%

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Primary Site Diagnosis of Cancers 2016

	Overall						Male						Female					
All AGES	Total		Leb		Jord		Total		Leb		Jord		Total		Leb		Jord	
PRIMARY SITE	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Breast	251	36.7%	38	13.5%	213	53.0%	15	5.9%	1	0.8%	14	11.6%	236	55.0%	37	25.0%	199	70.8%
Lung	17	2.5%	6	2.1%	11	2.7%	10	3.9%	4	3.0%	6	5.0%	7	1.6%	2	1.4%	5	1.8%
Colon	32	4.7%	12	4.3%	20	5.0%	19	7.5%	4	3.0%	15	12.4%	13	3.0%	8	5.4%	5	1.8%
Lymphoma	46	6.7%	15	5.3%	31	7.7%	28	11.0%	9	6.8%	19	15.7%	18	4.2%	6	4.1%	12	4.3%
CNS	58	8.5%	40	14.2%	18	4.5%	33	13.0%	24	18.0%	9	7.4%	25	5.8%	16	10.8%	9	3.2%
Leukemia	30	4.4%	13	4.6%	17	4.2%	19	7.5%	8	6.0%	11	9.1%	11	2.6%	5	3.4%	6	2.1%
Female Repro	40	5.9%	27	9.6%	13	3.2%	1	0.4%	1	0.8%	0	0.0%	39	9.1%	26	17.6%	13	4.6%
Male Repro	25	3.7%	19	6.8%	6	1.5%	23	9.1%	18	13.5%	5	4.1%	2	0.5%	1	0.7%	1	0.4%
Urogenital	28	4.1%	18	6.4%	10	2.5%	25	9.8%	16	12.0%	9	7.4%	3	0.7%	2	1.4%	1	0.4%
Liver	8	1.2%	1	0.4%	7	1.7%	4	1.6%	1	0.8%	3	2.5%	4	0.9%	0	0.0%	4	1.4%
Other	148	21.7%	92	32.7%	56	13.9%	77	30.3%	47	35.3%	30	24.8%	71	16.6%	45	30.4%	26	9.3%
Total	683	100.0%	281	100.0%	402	100.0%	254	100.0%	133	100.0%	121	100.0%	429	100.0%	148	100.0%	281	100.0%

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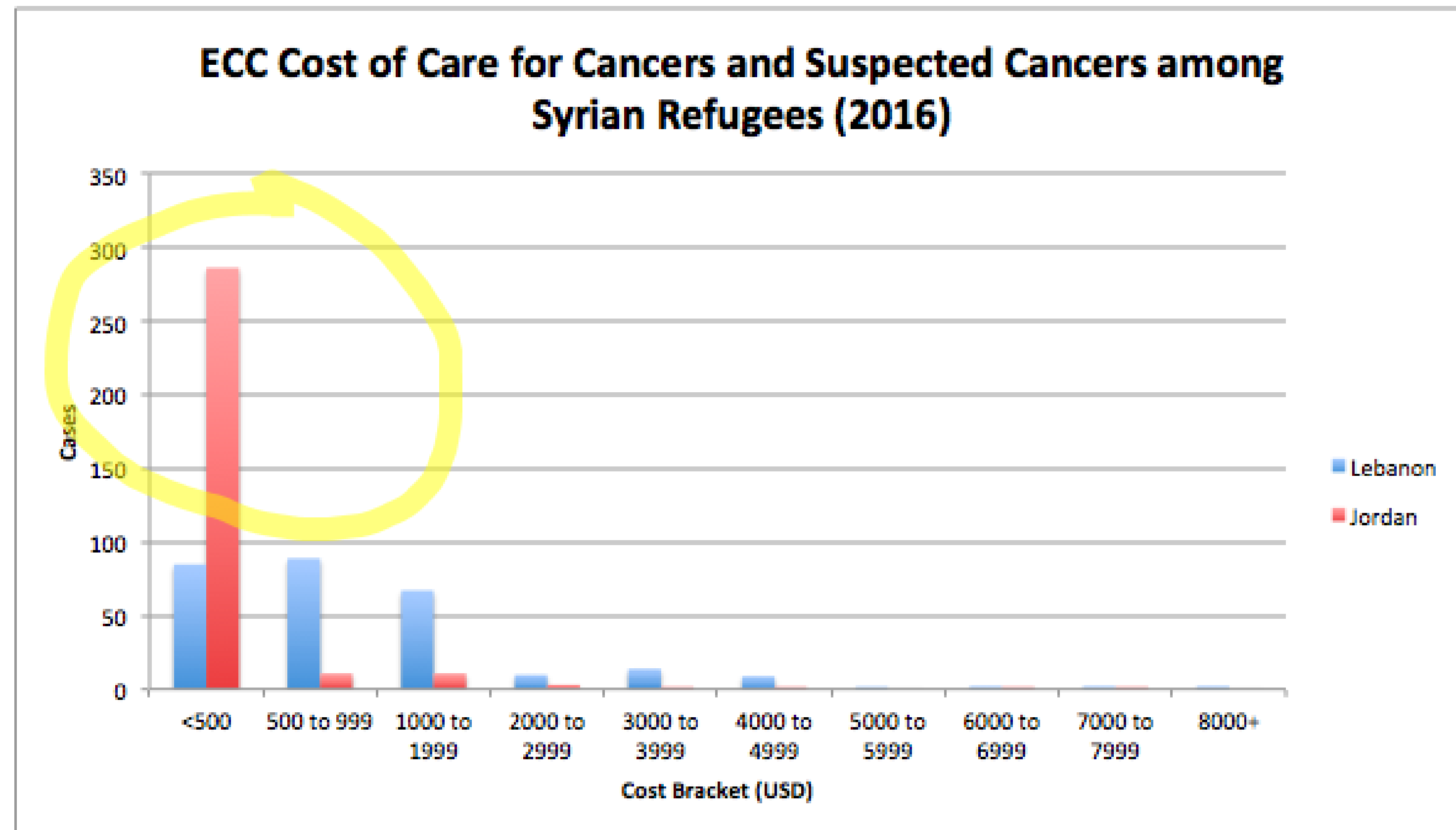
	2016				2012	
	Lebanon		Jordan		Jordan	
	N	%	N	%	N	%
ECC Approvals	164/281	58.0%	402/402	100%	90/138	65%
	Mean	Range	Mean	Range	Mean	Range
Costs (USD)	$1,234	(5 - 8,649)	$234	(9 - 7,143)	$3,501	(289 - 18,873)
% approved >75%	100%		76.0%			

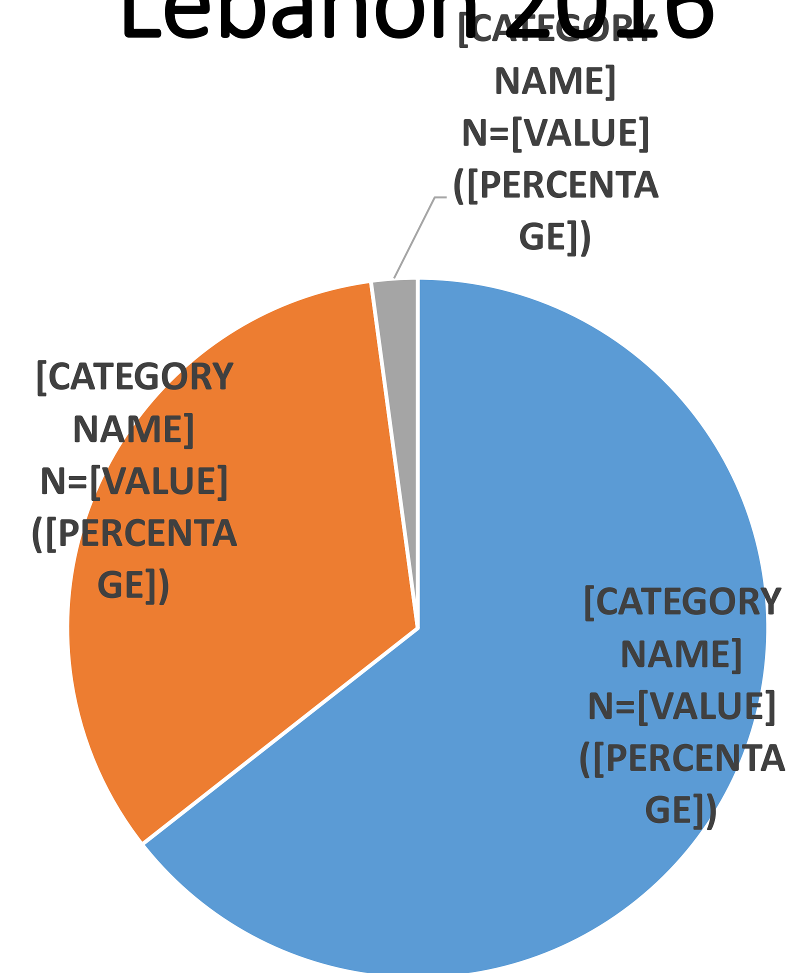
ECC Approvals and Cost



Regression Analysis

- Multivariate analyses with **cost** as outcome showed the following variables were statistically significant:
- Country – Lebanon USD 823 more than Jordan
- Diagnoses
  - Lung USD 727 than other diagnoses
  - Colorectal USD 662 than other diagnoses
  - CNS USD 873 than other diagnoses
- Sex, age and ECC claim status were NOT statistically significant

Types of Hospitals, Lebanon 2016



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Lebanon 2016: ECC and Medical Resettlement

	ECC	Resettlement
N	281	51
F:M ratio	1.08	0.8
Age (yrs)		
Mean	30 (0-82)	N/AC
<18	35%	40%
>=18	65%	70%
Origin: Syrian	98%	100%
Iraqi	2%	0%
Other	<1%	0%

All Ages – Primary Site	ECC		Resettlement	
	N	%	N	%
Breast	38	13.5%	7	16.7%
Lung	6	2.1%	3	7.1%
Colon	12	4.3%	1	2.4%
Lymphoma	15	5.3%	6	14.3%
CNS	40	14.2%	5	11.9%
Leukemia	13	4.6%	6	14.3%
Female Repro	27	9.6%	1	2.4%
Male Repro	19	6.8%	2	4.8%
Urogenital	18	6.4%	1	2.4%
Liver	1	0.4%	0	0.0%
Other	92	32.7%	10	23.8%
Total	281	100.0%	42	100.0%

Limitations

- ECC data not representative of refugee population
  - Non-registered refugees not included
  - Not include refugees who had cancer but cost not reach ECC threshold
  - Not include refugees who use other means to pay for health care
- Costs captured may relate to lab tests/ investigations performed and not actual cost of treatment (e.g. USD 5 for some cases)
- Diagnosis of men with breast cancer in Jordan

Observations

- Numerous differences among Lebanon and Jordan
  - Older patients in Jordan
  - Sex ratio of 2.4x women in Jordan – why (relates to breast cancer below)
  - Breast cancer diagnoses predominant in Jordan – why?
  - CNS and female repro diagnoses more predominant in Lebanon – why?
  - Lebanon spends more per case than Jordan and approves fewer ECC cases while providing more funds for those cases they approve
    - Possibly because prices higher in Jordan
    - Limited funding in Lebanon compared to Jordan means prioritise good prognosis?

Conclusions

- Similar to Lancet Oncology paper in 2014 (sadly)
- Cancer in refugees causes substantial burden on host country health systems
- Prevention activities need to be prioritised
- Differences bw countries need further examination and possibly standarisation (equity issue)
- Secure sustainable funding sources for tertiary care
  - Innovative financing schemes need to be explored
  - Resource allocation changes over time
- Establishment of electronic cancer registries
- Undertake prevalence study of cancer among refugees including access, treatment and cost

Acknowledgements

- Michael Woodman, UNHCR Lebanon
- Adam Musa Khalifa, UNHCR Jordan
- Jakob Arhem, UNHCR Jordan

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