MEMA 1st Global Congress on Conflict Medicine

Management of Cancer in Refugees and Displaced people from Conflict Areas

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Magnitude of the problem: It is Enormous!

Definitions: Displaced People & Refugees are people who are forced to do so, as a result of conflict, persecution, generalized violence, or human rights violations

Total Displaced People: 65.3 million / World population: 7.349 Billion

Total People Refugees: 21.3 million

Total Forced to flee homes, but still within own borders: 40.8 million

(Add people awaiting asylum: 3.2 million people in 2015)

- **Syrians: > +12 millions (> Half of the Syrian Population)**
- **In 2017: UN has declared the situation in Syria the worst humanitarian crisis of the 21st century**
- **In addition to conflict-related disease, PEOPLE CAN GET CANCER**

With 1 human in every 113 affected, forced displacement hits record high (UNHCR Press Release, June 20 , 2016
http://www.unhcr.org/en-us/news/press/2016/6/5763ace54/1-human-113-affected-forced-displacement-hits-record-high.html
Jo Cavallo, The ASCO post, 2016

GLOBAL LEADER ON STATISTICS ON REFUGEES

Trends at a Glance

2015 IN REVIEW

Global forced displacement has increased in 2015, with record-high numbers. By the end of the year, 65.3 million individuals were forcibly displaced worldwide as a result of persecution, conflict, generalized violence, or human rights violations. This is 5.8 million more than the previous year (59.5 million).

65.3 MILLION FORCIBLY DISPLACED WORLDWIDE

If these 65.3 million persons were a nation, they would make up the 21st largest in the world.

- 21.3 million persons were refugees
  - 16.1 million under UNHCR's mandate
  - 5.2 million Palestinian refugees registered by UNRWA
- 40.8 million internally displaced persons[1]
- 3.2 million asylum-seekers

http://www.unhcr.org/576408cd7

12.4
MILLION

An estimated 12.4 million people were newly displaced due to conflict or persecution in 2015. This included 8.6 million individuals displaced[2] within the borders of their own country and 1.8 million newly displaced refugees.[3] The others were new applicants for asylum.

3.7
MILLION

UNHCR estimates that at least 10 million people globally were stateless at the end of 2015. However, data recorded by governments and communicated to UNHCR were limited to 3.7 million stateless individuals in 78 countries.

24

PERSONS EVERY MINUTE

On average 24 people worldwide were displaced from their homes every minute of every day during 2015 – some 34,000 people per day. This compares to 30 per minute in 2014 and 6 per minute in 2005.

86
PER CENT

Developing regions hosted 86 per cent of the world's refugees under UNHCR's mandate. At 13.9 million people, this was the highest figure in more than two decades. The Least Developed Countries provided asylum to 4.2 million refugees or about 26 per cent of the global total.

183/1000
REFUGEES / INHABITANTS

Lebanon hosted the largest number of refugees in relation to its national population, with 183 refugees per 1,000 inhabitants. Jordan (87) and Nauru (50) ranked second and third, respectively.

1 Source: Internal Displacement Monitoring Centre (IDMC) of the Norwegian Refugee Council (NRC).
2 Ibid.
3 The number of newly displaced refugees does not include applications for asylum whose refugee status has yet to be determined

http://www.unhcr.org/576408cd7

Non-communicable diseases (NCD) & Conflicts

- **WHO: ~ 70% of deaths due to NCDs (mainly CVD, Diabetes, Lung diseases, cancer.**
- **LMIC: Risk of premature death – before age 70: caused by NCDs .**
- **Armed conflict and other situations of violence**
- **→ millions of people from their homes → Refugees and migrants suffering from NCDs are more vulnerable.**
- **→ millions living in crisis or emergency situations: → risk of exacerbating pre-existing conditions or suffering acute complications is higher than before**
- **Cancer Incidence: expect rise, Numbers & ages of refugees are rising!**

Refugees get cancer, late stages at diagnosis, have worse outcomes!

	Refugees	Migrants	Domestic
Numbers	20642	3395	11634
Cancer Incidence	2.6	1.89	0.97
Mortality 3-yr cum	0.839	0.681	0.437

- **Common Cancers diagnosed: Cervical cancer, vulvar cancer, lymphoma and lung, stomach and breast cancers**
- **Poor outcome: late diagnosis, which may be the result of insufficient support for this group of people, low levels of therapy completion and high rates of disease progression in the first months following diagnosis.**

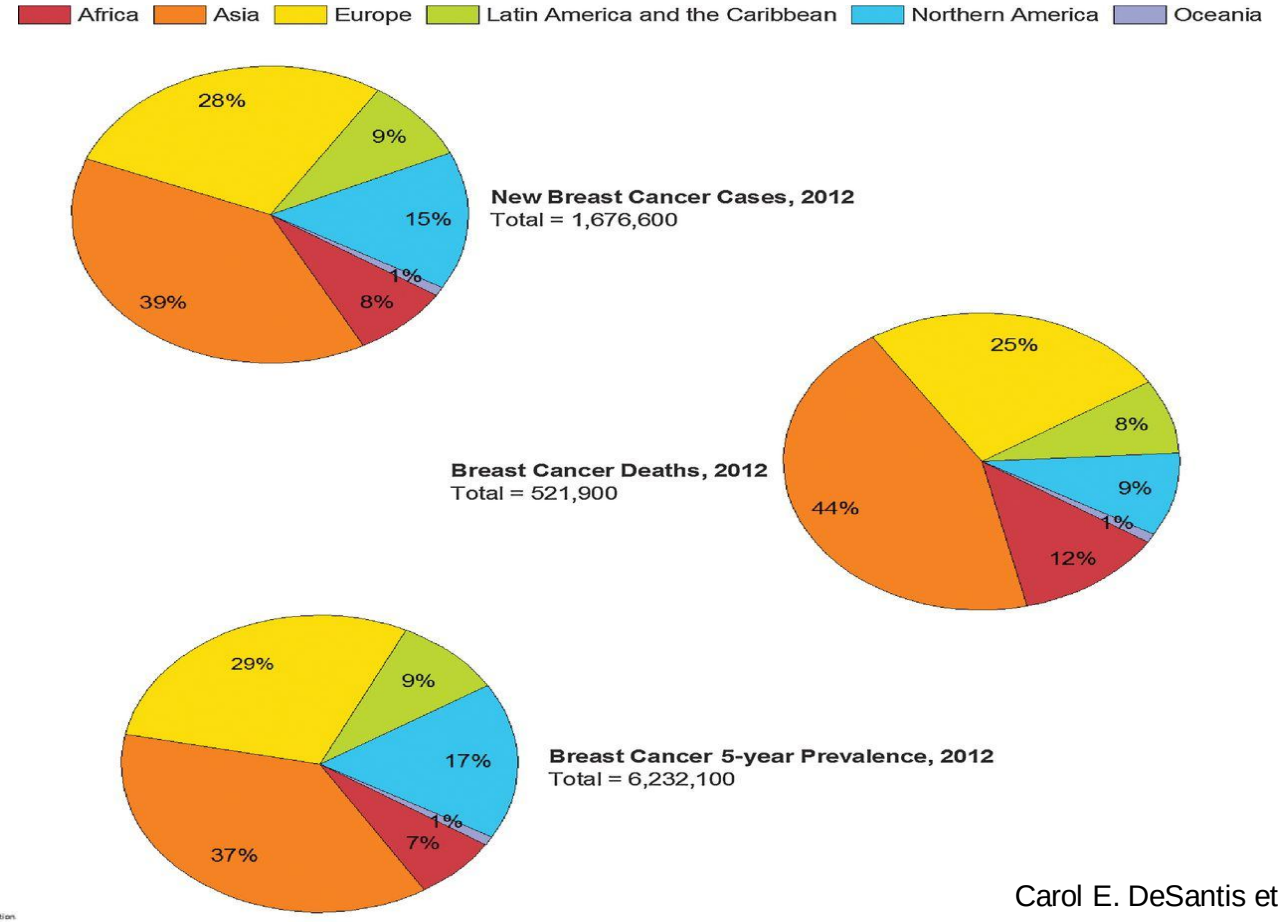
Dr. Jozef Suvada from St Elizabeth University, Bratislava, Slovak Republic

Estimated number of Cancer Cases & deaths Worldwide and among Refugees

	2012	LMIC (Low Middle Income Countries)	Estimated Numbers Among Refugees (2015)
Total Number population	7.300 B		65.3 M
Number of all cancer cases	14.1 M	7.98 M (57% of all new cases)	126.000 new cases per year
Number of all cancer deaths	8.2 M	54-65% of deaths	73.350

Ferlay J S, et al. Globocan 2008 V2.0: IARC CancerBase No. 10. (August 29, 2013.), (2010)
Ferlay J SI, et al . GLOBOCAN 2012 v1.0, IARC CancerBase No. 11. 2014(25 April 2014), (2013).
Lingwood RJ, Boyle P, Milburn A, et al. *Nat Rev Cancer* 2008; **8:** 398–403.
Anderson BO, Cazap E, El Saghir NS, et al. Lancet Oncol. 2011 Apr;12(4):387-98

Distribution of estimated female breast cancer new cases, deaths, and 5-year prevalence by world region, 2012.



Percentages may not sum to 100 due to rounding

AACR American Association for Cancer Research
Cancer Epidemiology, Biomarkers & Prevention

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Carol E. DeSantis et al. Cancer Epidemiol Biomarkers Prev 2015;24:1495-1506

New Breast Cancer cases & Outcome: Higher Mortality in Low Middle Income Countries LMIC

Higher Mortality expected in Refugees, mostly from LMIC

Reasons for Advanced Stage at presentation in Low Middle Countries, … more so and in Refugees!

- **Patient-related causes: shyness, fears, fatalistic attitudes, poor health education, society & taboos**
- **Health System-related causes: lack of access to care (primary health care or specialized centers; lack of programs by hosting countries; lack of attention from International Agencies**
- **Health care provider-related delays: Low index of suspicion**
- **Other priorities: "Room & Board", tents, sanitation, cleanliness, water, food, vaccinations, child care, infections, diarrheas, …**
- **→ Advanced cancer cases, fear for higher costs of treatment, labeling patients as "hopeless cases", funds if available are diverted elsewhere, patients left to suffer and die from disease!**

Adapted from El Saghir, et al. LABC. Cancer 2008 Oct 15;113(8 Suppl):2315-24

Present Situation inside Syria: Damages & What is being done

Subject will be covered by Dr. Zahera Fahed

- **Drugs & Manufacturing & Medicinal Factories**
- **Drug Availability and Access**
- **Hospitals & Clinics: Doctors:** Half of Syria's MDs have left the country
- **Large Numbers of young people, students, university grads, professionals**: are leaving the country, whenever they can!

Cancer in Refugees: Care is excluded from UNHCR and other Humanitarian agencies

- **People register at UN agency**
- **If sick, they apply for coverage: they may be referred here & there ..**
- **For cases suspected or have cancer: The UNHCR Emergency Care Committees ECC usually declines coverage because of "poor prognosis", .. … but, the real cause is "high costs", no funding from UNHCR nor Host Country!!!** (Lancet study, 2015 ….)

- **but, … this is not always the case! Cancer treatment is not always expensive nor very expensive!**
- Real Case Scenario: Patient MS …

Refugees in Lebanon: care of patients with cancer

- **Great difficulties in getting information**
- Patients present to charity clinics: File is established. Tests requested. Patient should arrange to them and return. Patient does not return!
- **UNHCR does not cover patient care for cancer**
- **Patients may go back to Syria, …**
- **Patients may get admitted to ER of governmental hospitals: MOH of Lebanon says UNHCR is overdue to pay back "Millions of USD"!**
- **Donations and Charities: ALSAC-St Jude-CCCL-AUBMC; Makhzoumi Clinics, Amel Association, MSF, ICRC, individual donors, etc, …**
- **Tough to get data, except AUBMC (Dr. Hassan El-Solh will present)**

Real Life situations in LMICs, more marked for Refugees: … Limitations of Resources & Treatment

- **Surgery:** not always available, or not accessible
- **Radiation therapy:** scarce availability; NOT available for Refugees
- **Systemic chemotherapy**: Drugs not always available, Chemo not always administered by trained medical oncologists, whose numbers are few anyway, LOW COST DRUGS FORGOTTEN BY TREATING BODIES!
- **Limited Imaging Facilities: Only basic XR may be available (which may be enough!**
- **Lack of pathology services & laboratories: costs cited at referral labs in hosting countries**
- **Palliative care:** fragmented
- **Resource-Stratified Guidelines:** not known, not disseminated, not implemented

Anderson BO, Cazap E, El Saghir NS, et al. Lancet Oncol. 2011 Apr;12(4):387-98
El Saghir NS, Farhat R, Charara R, Khoury R. Future Oncol Future Oncol. 2014 Oct;10(12):1953-65.

Cancer in Refugees:
Myth of “high costs” and “poor prognosis”

- **Prevention, Screening and Early Detection: …** difficult, but, we may be able to something (smoking You will look like a fool if you want to run n anti-smoking campaign among refugees … … to prevent cancer “that may develop 20 years from now”..
- **Early Diagnosis: we may get a good response, because they may benefit immediately from it!**
- **Treatment of early stage disease: If we make it available, we may alleviate additional suffering, and save money: even with low costs!**
- **Treatment of advanced disease: there are ways of treating advanced disease with low costs**

Myth of Expensive Cancer Treatment for Refugees
Example: Patient with breast cancer

- **Surgery: Patient can be treated with relatively cheap Mastectomy, and be cured (**If expensive Partial Mastectomy, Sentinel Lymph Node Biopsy, and radiation therapy are not available)
- **Chemotherapy: Patient can be given CMF, or AC: low costs (**If expensive chemo and targeted therapy is not available)
- **Targeted therapy: Low cost chemotherapy benefit is still of benefit** (If Herceptin and Perjeta are not available)
- **Hormonal therapy: Patient can be treated given tamoxifen $5 per month (**If relatively expensive AI and LHRHa not available)
- **Treatment does not have to be expensive (References: BHGI publications)**

Anderson BO, Cazap E, **El Saghir NS**, et al. Optimisation of breast cancer management in low-resource and middle-resource countries: executive summary of the Breast Health Global Initiative consensus, 2010. Lancet Oncol. 2011 Apr;12(4):387-98

El Saghir NS, Eniu A, Carlson RW, et al. Locally advanced breast cancer: treatment guidelines with particular attention to low- and middle-income countries. Cancer. 2008;113(8 suppl):2314-2323

Management of Cancer Patients in Low Resource Settings: Resource-sensitive Guidelines

- **How to better manage breast cancer patients even in the presence of limited resources**

- **How to do "The Best We Can"**

  with the "Resources That We Have"

→ Breast Health Global Initiative (BHGI)

- ASCO Guidelines for Cancer of the Cervix

- New NCCN resource-stratified guidelines for: Colon, gastric, …

BHGI publications Summits & Publications: 2002-2012

Anderson BO, Cazap E, **El Saghir NS**, et al. Optimisation of breast cancer management in low-resource and middle-resource countries: executive summary of the Breast Health Global Initiative consensus, 2010. Lancet Oncol. 2011 Apr;12(4):387-98

The Breast, 22(5): 593-605, 2013; *The Breast*, 22(5): 606-615, 2013; *The Breast*, 22(5): 616-627, 2013

El Saghir NS, Eniu A, Carlson RW, et al. Locally advanced breast cancer: treatment guidelines with particular attention to low- and middle-income countries. Cancer. 2008;113(8 suppl):2314-2323; Letter, Journal of Global Oncology 2016; NCCN Global, resource-stratified Guidelines

GLOBAL SUMMIT 2005 – Bethesda

Resource Stratification

- **Basic level:** **Core resources** or fundamental services necessary for any breast health care system to function.
- **Limited level:** **Second-tier resources** or services that produce major improvements in outcome such as survival.
- **Enhanced level:** **Third-tier resources** or services that are optional but important, because they increase the number and quality of therapeutic options and patient choice.
- **Maximal level:** **Highest-level resources** or services used in some high resource countries that have *lower priority* on the basis of extreme cost and/or impracticality.

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BHGI GUIDLINES for management of breast cancer according to levels of resources Anderson BO, Carlson R, Eniu A, et al. *Cancer 2008;113:2221-2243*

•EARLY DETECTION

Level of resources	Public Education and Awareness	Detection Methods
Basic	Development of culturally sensitive, linguistically appropriate local education programs for target populations to teach value of early detection. Breast cancer risk factors and breast health awareness (education + self-examination)	Clinical history and CBE
Limited	Culturally and linguistically appropriate targeted outreach/education encouraging CBE for age groups at higher risk administered at district/provincial level using healthcare providers in the field	Diagnostic breast US +/- diagnostic mammography in women with pos. CBE Mammographic screening of target group
Enhanced	Regional awareness programs regarding breast health linked to general health and women's health programs	Mammographic screening every 2 years in women ages 50-69 Consider mammographic screening every 12-18 months in women ages 40-49
Maximal	National awareness campaigns regarding breast health using media	Consider annual mammographic screening in women age 40 and older. Other imaging technologies as appropriate for high-risk groups

BHGI GUIDLINES for management of breast cancer according to levels of resources; Anderson BO, Carlson R, Eniu A, et al. *Cancer 2008;113:2221-2243*

•DIAGNOSIS

Level of resources	Clinical	Imaging and Lab tests	Pathology
Basic	History Physical Exam Clinical breast examination (CBE) Tissue sampling for cancer diagnosis (cytologic or histologic) prior to initiation of treatment	-	Pathology diagnosis obtained for every breast lesion by any available sampling procedure Pathology report containing appropriate diagnostic and prognostic predictive information to include tumor size, LN status, histologic type and tumor grade Process to establish hormone receptor status possibly including empiric assessment of response to therapy Determination and reporting of TNM stage
Limited	US-guided FNAB of sonographically suspicious axillary nodes Sentinel lymph node (SLN) biopsy with blue dye	Diagnostic breast ultrasound(US) Plain chest and skeletal radiography, Liver US Blood Chemistry profile Complete blood count (CBC)	Determination of ER status by IHC Determination of margin status, DCIS content, presence of LVI Frozen section or touch prep SLN analysis
Enhanced	Image guided breast sampling Preoperative needle localization under mammo and/or US guidance SLN biopsy using radiotracer	Diagnostic mammography Specimen radiography Bone scan, CT scan Cardiac function monitoring	Measurement of HER-2/neu overexpression or gene amplification Determination of PR status by IHC
Maximal		PET scan, MIBI scan, breast MRI BRCA1/2 testing Mammographic double reading	IHC staining of sentinel nodes for cytokeratin to detect micrometastases; Pathology double reading; Gene profiling tests

BHGI GUIDLINES for management of breast cancer according to levels of resources; Anderson BO, Carlson R, Eniu A, et al. *Cancer 2008;113:2221-2243*

•STAGE I

Local-regional treatment		Systemic treatment (adjuvant)			
Level of resources	**Surgery**	**Radiation therapy**	**Chemotherapy**	**Endocrine therapy**	**Biological Therapy**
Basic	**Modified radical mastectomy**			**Oophorectomy in premenopausal women Tamoxifen**	
Limited	**Breast conserving surgery Sentinel lymph node (SLN) biopsy with blue dye**		**Classical CMF AC, EC, or FAC**		
Enhanced	**SLN biopsy Breast reconstruction surgery**	**Breast-conserving whole-breast RT as part of breast conserving therapy**	**Taxanes**	**Aromatase inhibitors LH-RH agonists**	**Trastuzumab for treating HER-2/neu positive disease**
Maximal			**G-csf, Dose-dense chemo**		

BHGI GUIDLINES for management of breast cancer according to levels of resources

Anderson BO, Carlson R, Eniu A, et al. *Cancer 2008;113:2221-2243*

•STAGE II

Local-regional treatment			Systemic treatment (adjuvant)		
Level of resources	**Surgery**	**Radiation therapy**	**Chemotherapy**	**Endocrine therapy**	**Biological Therapy**
Basic	**Modified radical mastectomy**		**Classical CMF AC, EC, or FAC**	**Oophorectomy in premenopausal women Tamoxifen**	
Limited	**Breast conserving surgery Sentinel lymph node (SLN) biopsy with blue dye**	**Postmastectomy irradiation of chest wall and regional nodes for high-risk cases**			
Enhanced	**SLN biopsy using radiotracer Breast reconstruction surgery**	**Breast-conserving whole-breast irradiation as part of breast conserving therapy**	**Taxanes**	**Aromatase inhibitors LH-RH agonists**	**Trastuzumab for treating HER-2/neu positive disease**
Maximal			**Growth factors Dose-dense chemotherapy**		

BHGI GUIDELINES for management of LABC according to levels of resources: STAGEIII

Level of resources	Local-Regional Treatment		Systemic Treatment (Neoadjuvant and adjuvant)		
	Surgery	Radiation therapy	Chemotherapy	Endocrine Therapy	Biological Therapy
Basic	Modified radical mastectomy		Preoperative chemotherapy with AC, EC, FAC or CMF	- oophorectomy in prem. women - Tamoxifen	
Limited		Postmastectomy irradiation of chest wall and regional nodes			
Enhanced	- Breast-conserving surgery - Breast reconstruction surgery	Breast-conserving whole-breast RT as part of breast conserving therapy	Taxanes	- Aromatase inhibitors - LH-RH agonists	Trastuzumab for treating HER-2/neu positive disease
Maximal			Growth factors Dose-dense chemotherapy		

Anderson BO, Carlson R, Eniu A, et al. *Cancer 2008;113:2221-2243*

BHGI GUIDELINES for management of MBC according to levels of resources: Stage IV

Level of resources	Local-Regional Treatment		Systemic Treatment		
	Surgery	Radiation therapy	Chemotherapy	Endocrine Therapy	Supportive Therapy
Basic	Total mastectomy for ipsilateral breast tumor recurrence after breast conserving surgery			Oopherectomy in pemenopausal woman Tamoxifen	Nonopioid and opioid analgesiscs and symptom management
Limited		Palliative radiation therapy	Classical CMF Anthracycline monotherapy or in combination		
Enhanced			Sequential single agent or combination chemotherapy Trastuzumab Lapatinib	Aromatase inhibitors	Bisphosphonates
Maximal			Bevacizumab	Fulvestrant	Growth factors

Anderson BO, Carlson R, Eniu A, et al. *Cancer 2008;113:2221-2243*

Primary Prevention of Cervical Cancer

	Condition	Recommendation
HPV Vaccination	Girls between 9 to 14 years old	2 doses of HPV vaccine with an interval of at least 6 months and possible up to 12-15 months
	HIV positive individuals	3 doses of HPV vaccine
Maximal and enhanced settings	Girls >15 y-o and received their first dose before 15 yo	May complete series. Vaccination may be through age 26
	Girls >15 years old but did not receive their first dose before 15 yo	3 doses. Vaccination may be through age 26
Limited and basic settings	if sufficient resources remain after vaccinating girls age 9 to 14 years	girls who received one dose may receive additional doses between age 15 - 26 yrs; Boys vaccination: Not recommended
Maximal, enhanced and limited settings	if > 50% coverage in the priority female target population, sufficient resources, and cost effectiveness,	boys may be vaccinated to prevent other noncervical human papillomavirus–related cancers and diseases

Silvina Arrossi, et al. ASCO Resource-Stratified Guidelines. J Global Oncol 17 March 2017

Note: GAVI Vaccine Alliance Program:
HPV vaccine for 4.6 USD only! www.gavi.org
Refugees should be eligible for the GAVI program!
HPV vaccination: Should not be overlooked!

Lancet Oncology Commission Findings: Focus on Global Surgery 2030 in LMIC

- **2/3rd** of the world's population cannot access safe surgery
- The **poorest 1/3rd** of world's population receives only **6%** of procedures done globally
- **33 million people** every year face catastrophic expenditures paying for surgical care
- **Investing in surgery saves lives, is affordable & promotes economic growth**
- Surgery is an indivisible, indispensible part of health care

Presented by Richard Sullivan at ECCO 2015, Vienna, Austria
Lancet Oncology, supplement, September 2015

The Lancet Oncology Commission on Expanding Global Access to Radiotherapy:

- **Investment in radiotherapy not only enables treatment of large number of cancer cases to save lives, it also brings positive economic benefits**

Atun R, et al. Lancet Oncol, supplement, September 2015

Conclusions: Care for Refugees & Displaced People

- **Cancer, like other NCDs, is a real issue in Refugees**
- **Care of refugee patients with Cancer remains a big challenge**

- **Cancer does not always have a poor prognosis**
- **Cancer treatment is not always expensive**

- **UNHCR and other agencies should agree to cover patients with cancer**

- **Resource stratified guidelines can be applied:**
  "Do the best we can, with the resources that we have, while working on improving our resources" (El Saghir, et al. Breast Cancer Management, May 2016 , Vol. 5; 2: 69-77)

And also: "while working on stopping the fighting and solving the political and military conflicts":

- **AUB MEMA Global Congress on Conflict Medicine**
- **Final words: STOP the FIGHTING, … STOP the FIGHTING! … STOP the FIGHTING!**

- **For Governments and Agencies who promote & Fuel CONFLICTS: STOP IT!**

- **Money does not always have to come from Charities: Whoever pays for the fighting, should pay for the damages! This is a SUGGESTION for a UN Resolution!**

Thank you for all your efforts & your kind attention!