Palliative cancer care in Middle Eastern countries: accomplishments and challenges†


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Background: In larger parts of the Middle East palliative care is still misunderstood among health professionals, cancer patients and the public at large. One reason to that is because the term does not obviously communicate the intent of this clinical discipline, which is lending better quality of life while combating cancer. Further, culture, tradition and religion have contributed to this misgiving and confusion especially at the terminal stage of the disease.

Methods: The Middle East Cancer Consortium jointly with the American Society of Clinical Oncology, the American Oncology Nursing Society, the San Diego Hospice Center for Palliative Medicine and the Children’s Hospital & Clinics of Minnesota initiated a series of training courses and workshops in the Middle East to provide updated training to physicians, nurses, social workers and psychologists from throughout the region with basic concepts of palliative care and pain managements in adults and children cancers.

Results: During the past 6 years hundreds of professionals took part in these educational and training activities, thereby creating the core of trained caregivers who start to make the change in their individual countries.

Conclusions: The outcome of consecutive training activities can overcome geopolitical instabilities, and yield a genuine change in approach of both regulators, medical administrators, medical staff and the public; as to the important contribution of palliative care services to the welfare of the patient and his/her family.

Key words: pain, palliative care, Middle East, cancer

Introduction

In many of the developed countries in North America, Western Europe and Oceania, great strides have been made in the treatment of cancer. Public awareness has increased, treatment modalities improved and consequently the number of survivors is rapidly increasing. Concomitantly, advances in palliative care have also taken place, albeit at a slightly lower pace [1]. Unfortunately, that is not the case in most of the low- and middle-income countries. Most of the countries in the Middle East belong to the latter category, where the majority of cancer patients are diagnosed with advanced stage disease. For these patients, the only realistic treatment option is pain relief and palliative care.

The most efficient pain relief drugs for moderate to severe pains in cancer patients are the opioids: natural opiates (morphine), semi-synthetic opioids (oxycodone, hydromorphone, hydrocodone), and synthetic opioids (fentanyl and its analogues). Yet, the above drugs are for the most part not available for most cancer patients in the Middle East [2]. Some of the reasons for this situation refer to regulatory and pricing obstacles, lack of knowledge or false beliefs [3]. International organizations have been playing an important role in encouraging effective pain management and monitoring the availability of opioid for medical use [4, 5].

Further, in most developing countries there is still a general lack of government policies that recognize palliative care as an essential component of health care, along with an inadequate training for both health care professionals and general public about the necessity and importance of palliative care as integral part of cancer care [6].

As long as those drugs remain inaccessible to the large majority of people around the world, patients will not be able to derive the health benefits to which they are entitled under the Universal Declaration of Human Rights [7]. It has been well documented that cancer pain is very often associated with depression and/or anxiety [8]. Hence, psychotropic substances as benzodiazepine-type anxiolytics and sedative-hypnotics

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along with barbiturates become indispensable medications for the treatment of cancer-related neurological and mental disturbances. Therefore, combining the above substances to the medical treatment of cancer patients contribute substantially to the relief of pain and suffering [7].

Current statistical surveys indicated that the global burden of cancer continues to increase largely because of the aging and growth of the world population alongside an increasing adaptation of cancer-causing behaviors, particularly smoking, in economically developing countries. Although the overall cancer incidence rates in the developing world are half those seen in the developed world in both sexes, the overall cancer mortality rates are generally similar [9].

In Western societies death has become medicalized and curative procedures are often prioritized ahead of palliative care. The ‘cure at all cost’ attitude of physicians, along with the strong religious views that many families hold on the sanctity of life often complicate end-of-life management [10]. Also, in Western culture there is a recognizable lack of acceptance of death, leading to reluctance in seeking end-of-life care; as Western culture often tries to deny death as a natural process [11]. This may create an atmosphere where some people are unprepared for their own death or the death of a loved one.

By contrast, Islamic societies, unlike several Western societies, are more death accepting, and live in coexistence with the realization of the inevitability of death. Such an attitude has an impact as to how a patient and his family may view death, also knowing what lies beyond it [12].

Another cultural barrier to the delivery of palliative care is that people associate such care with ‘giving up’ on life, rather than providing quality of life when suffering terminal illness [13]. Further, trying to translate findings from the West may be problematic in non-Western, and particularly non-Christian cultures; as many of the assumptions that underlie the approach to suffering and death in the West are culturally based on values and beliefs of western European society [14].

More than 50% of all cancer patients experience pain [15], and 60%–90% of patients with advanced cancer experience moderate to severe pain [16].

**findings**

In 2009, over 90% of the global consumption of morphine was confined to North America, Western Europe and Oceania (Figure 1). For the period 2007–2009, the consumption of opioids in the United States showed the highest levels in the world [39 487 Sold-Defined Daily Doses (S-DDD) per million inhabitants per day]. Of interest is the fact that in the United States during the period of 2007–2009 hydrocodone was the number one drug of choice followed by fentanyl, oxycodone and only in 4th place was morphine (Table 1).

In the Middle East, Israel showed a level of 3482 S-DDD per million inhabitants per day (Figure 2). However, there continue to be large disparities in the consumption levels of other Middle Eastern countries (Table 2).

While comparing the consumption levels of opioid analgesics in Middle Eastern countries during the periods of 1997–1999 and 2007–2009, it became apparent that the consumption levels increased significantly (Figure 2), whereas in Cyprus and Turkey the levels reached 600 S-DDD per million inhabitant per day, the level in Jordan, Lebanon and Saudi Arabia remained below 200 S-DDD per million inhabitants per day. In Egypt, the consumption reached 49 S-DDD per million inhabitants per day, whereas in Iraq and Pakistan the levels were below 10 S-DDD per million inhabitants per day (Table 2).

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**Figure 1.** Distribution of morphine consumption, 2009.
The above findings clearly indicate large disparities among Middle Eastern countries, unfortunately, these medicines continue not to be available and accessible in sufficient quantities to meet the medical needs of populations in most countries in the region.

**availability of benzodiazepines**

For benzodiazepines, global calculated consumption showed a slight increase in the last decade. Among the anxiolytics, alprazolam and diazepam were the most used substances; whereas triazolan was the most consumed sedative-hypnotic. Clonazepam and phenobarbital are anti-epileptic which are also used to induce sleep [7]. Overall, the anxiolytics are prescribed for the elderly. The consumption of these drugs in most Middle Eastern countries increased, and the highest levels were reached in Cyprus and Israel (Figure 3).

In the Middle East the consumption of the sedative-hypnotics Benzodiazepines increased in Israel and Cyprus, which are the countries with the largest population of elderly people. In other Middle Eastern countries the levels tended to be very low. Lebanon and Pakistan had levels of less than 4 S-DDD per thousand inhabitants per day (Figure 4).

### barriers to palliative care and pain treatment

Barriers can be divided into three areas [5]:

1. Lack of health policies in support of palliative care development (Table 2).
2. Lack of relevant training to healthcare workers (Table 3).
3. Poor accessibility of essential palliative care drugs (Tables 4 and 5).

1) In the Middle East only Turkey and Israel have a national palliative care policy- details are given in the following respective chapters.
2) One of the largest obstacles to the provision of good palliative care and pain treatment is the lack of training for

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**Table 1. Pain treatment and palliative care policies in Middle Eastern countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>National palliative care policy</th>
<th>Reference to national cancer control policy</th>
<th>Oral morphine; a registered medicine</th>
<th>Essential medicines list</th>
</tr>
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<tbody>
<tr>
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<td>USA</td>
<td>No/A</td>
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**Figure 2. Availability of opioid analgesics, 1997–1999 and 2007–2009 in Middle Eastern Countries and the USA.**

health workers. Consequently, the latter are reluctant to use opioid medications because of exaggerated fears that they would cause dependence syndrome or respiratory distress in patients. Given that almost all physicians and nurses will encounter patients in need of palliative care and pain treatment, especially in the community, instruction of principles in palliative care should be a standard in the postgraduate training of family physicians, pediatricians and community nurses. To that goal the Middle East Cancer Consortium (MECC) has recently organized jointly with the Children’s Hospitals & Clinics of Minnesota (USA) training courses for the Middle Eastern pediatricians and community nurses in Larnaca, Cyprus (November 2011) [17], with the San Diego Institute for Palliative Medicine (USA) for family physicians and community nurses in Antalya, Turkey (December 2011), and with the US Oncology Nursing Society in Pittsburgh (USA) an introductory course in palliative medicine to hospital and community nurses in the Sultanate of Oman (February 2012). These educational activities will be followed by additional courses and workshops with the goal to create a Middle Eastern nucleus of champions who will later on take upon itself continuing education activities throughout the Middle East. Considering the fact that in the Middle East there are ethnic minorities who benefit less from recent advances in health interventions, a community-based
orientation becomes of special importance, yielding positive impact on such vulnerable populations. A recent study in the USA revealed that eliminating socioeconomic disparities could potentially avert twice as many premature cancer deaths as eliminating ethnic disparities, underscoring the dominant role of poverty in cancer disparities [18].

3) Drug availability. An important issue refers to the availability of opioids in general and morphine in particular in different types of healthcare facilities. In the Middle East, only in Turkey, Israel and Iran injectable morphine is available in all hospitals, as is the case in the United States (Table 4). Oral morphine is generally available in tertiary hospitals, but less available in smaller health centers and pharmacies. Consequently, patients suffering from moderate to severe pain often need to be referred to larger health facilities, thereby making pain treatment less accessible and more costly especially for those living far from major cities.

The World Health Organization (WHO) has already emphasized the importance of palliative care services in developing countries, a fact that is relevant to most Middle Eastern countries where cancer treatment is not universally available; and as a consequence most cancer patients seek medical attention only when the disease is in an advanced stage, beyond cure but causing severe pain [19–21]. It is
therefore our belief that countries with limited resources ought to lend more attention to home-based palliative care services, which can be provided for the most part by a visiting nurse with a community healthcare worker under the supervision of a physician either in the community or in an oncology center in a major medical center.

Lung cancer, the most commonly diagnosed cancer in low- and middle-income countries, is the single most significant cause of cancer-related death [22]. In the Middle East, lung cancer is the number one cancer in males in Turkey, Pakistan, Morocco and Palestine whereas prostate cancer constitutes the number one cancer in Cyprus, Israel and Lebanon. In Jordan colorectal cancer is the number one cancer in males [23]. Globally, colorectal cancer is the third most commonly diagnosed cancer in males and second in females; whereas prostate cancer is the second most frequently diagnosed cancer in males [9]. Breast cancer is the most frequently diagnosed cancer in women globally, including the Middle East [23]. The mortality burden for lung cancer among females in developing countries is as high as the burden for cervical cancer [9]. Although overall cancer incidence rates in the developing world are half those seen in the developed world in both sexes, the overall cancer mortality rates are generally similar [9]. Moreover, in developing countries there is a disproportionately high burden of cancers related to infections.

Cancer survival tends to be poorer in developing countries, most likely because of a combination of the late stage at diagnosis (Lebanon 28%, Egypt 50%, Turkey 52%, Palestine 70%) and the limited access to timely and standard treatment [22].

Previous experiences have shown that partial responses to complex health challenges were doomed to fail. In the case of cancer, only a comprehensive approach that combines the following criteria: clear national policies, education of professionals and the public (including stigma reduction), early diagnosis and access to effective treatment and palliative care will guarantee success. More recently, access to adequate palliative care has emerged as a major issue in providing humane and effective cancer care in all Middle Eastern countries. Unfortunately, there are still countries in this region where patients do not receive the drugs they need to manage strong pains, because of excessive or ill-managed policies to discourage abuse of these essential drugs (Table 2).

### Where are we now?

It is time of an increasing interest in palliative care worldwide and in the Middle East in particular. Practically, there are still substantial barriers to palliative care, and especially so at the end of life. These relate to variations in religion, education and traditions which are not uniform throughout the Middle East. Further, a major barrier often refers to the protective attitude of the patient’s families, who do not want the patients to be told that they are dying.

To date, many clinicians are relying on their own personal experiences while practicing palliative care as there is still lack of evidence-based data. As more and more cancer patients survive, fewer die but more suffer. In developed countries the ratio is 40:60 whereas in developing countries 60:40 [18]. Accordingly, a paradigm shift must occur that does not equate palliative care with end-of-life. A problem that the profession is still facing are the perceptions of death, and cultural taboos which stigmatize death along the trump to ‘cure at all cost’ attitude.

The Middle East is characterized by multiple faiths and cultures: Islam (Sunni, Shi’ite), Judaism, Christianity (Greek Orthodox, Roman Catholic, Copt, Maronite, Armenian and Assyrian), Druse and Cherkess, which are devoutly practiced. In the evidence of a cross-cultural situation such as this, it is essential that health care providers should be respectful of, and responsive to the health beliefs, practices and cultural needs of such a diverse population of patients. Much of the initial emphasis in the MECC palliative care project has been on end-of-life because that is where the need was found to be greatest. The existing taboos and stigmas are not always a cultural barrier but simply a barrier of education and understanding. It is, therefore, important that education at all levels be undertaken including families, healthy care professionals, imams, rabbis, priests along with policy makers and regulations. This multi-level educational process should be an ongoing process involving oncologists, oncology nurses, social workers and psychologists.

The patient’s reliance on his family explains the strong association between family functioning and the patient’s psychological adjustment during and after the active illness. Family factors are also important in the adherence to treatment. Therefore, while practicing palliative care, the family environment has to be evaluated and especially so in societies

<table>
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<th>Table 5. Restrictive regulation of morphine prescribing in Middle Eastern countries*</th>
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where family bonds are as intense and important, as in the case in Middle Eastern societies.

Psycho-oncology and palliative care are concurrently evolving subspecialties around the world. In the past, physicians had little option but to focus on thanatology due to the lack of resources in each sub-specialty. Indeed, there still exists a significant geographic inequality in the focus of these two interconnected subspecialties between developed and developing countries. In developed countries these subspecialties are beginning to focus on the psychological, behavioral, physical, spiritual and existential dimensions of cancer patients, their families and the caregivers. At the same time, developing countries often lack the needed financial or clinical resources or have different priorities for the evolution of these subspecialties. The advancement of interdisciplinary collaboration of palliative care for cancer patients in many developed countries might serve as a possible model for change in developing countries. Initiatives and efforts of international organizations such as MECC might help ameliorate significant mental and physical healthcare disparities in developing countries and provide fresh cultural insights to developed countries [24].

where we want to go

We now have the means to make real difference to the lives of cancer patients in the throes of their final illness and to the lives of their loved ones. There is, therefore, no excuse that in the Middle East and elsewhere cancer victims are suffering so that their caregivers – whether family, social or professional – are increasingly frustrated by the obstacles to accessing timely and appropriate care. The entire caring staff ought to adopt clinical skills such as active listening, respecting autonomy and emphatic care none of which relies on expensive, modern infrastructure. These can be implemented anywhere as long as the care givers appreciate the importance of staff–patients–families having time together.

In 2012, issues related to quality of death should be recognized as a core clinical proficiency, integrating modern technologies with humanistic and ethical considerations. These are indeed genuine challenges, yet accomplishing even part of them would mean a lot to all those in need.

current status of palliative care in Middle Eastern countries

Jordan

The population of Jordan was 6 508 271 in 2011; 35.3% of which are below the age of 14 years and 4.8% are above the age of 65 years. Jordan has 4600 new adult cancer cases per year and 230 pediatric cases between 0 and 14 years. About 60%–70% of all cancer cases present in a late stage (stage III and IV), and will need palliative care. The Jordanian Palliative Care Initiation (JPCI) started in 2001. At that time there was only one non-governmental organization (NGO), the Al-Malath Foundation that provided palliative care services to a limited number of patients. The consumption of morphine in Jordan in 2008 was 1.2 mg per capita.

At the present time, specialist palliative care services are offered by the King Hussein Cancer Center (KHCC), and by the Al-Malath Foundation in Amman. Supportive care is also being provided at the Al-Basheer Hospital in Amman.

King Hussein Cancer Center provides the majority of palliative care services for adult and childhood cancers in Jordan. Referrals are usually made by the primary oncologist, and care is provided either at home or via hospice care within the hospital, according to the patient’s/family choice.

The adult palliative care program was developed in 2004 at KHCC, starting with hospital or hospice-based services. With time, the focus of care provision shifted to home-based care. The area of coverage is currently limited to the capital Amman and its surroundings. The palliative care team comprises of palliative care consultants (physicians), specialized nurses, pharmacist and psychologist. The pediatric palliative care was established in 2005 at KHCC, and is a comprehensive, multidisciplinary care. It is provided by a multidisciplinary team comprised of pediatric oncology consultant (physician), general pediatrician (physician), a nurse coordinator (clinical nurse specialist), psychologist, social worker and pharmacist. This team provides palliative care services on a 24/7 basis to hospitalized children; as home care services are not as yet available for pediatric patients.

barriers to palliative care

The major barriers to palliative care that are associated with the healthcare providers include:

1) Delay in referrals, due to physicians’ denial of the need to refer and the sense of failure.
2) Palliative care as a discipline is being seen as less prestigious.
3) Caregivers are often uncomfortable caring for terminal patients, and there are often difficulties in discussing changes in the goals of treatment and referral to palliative care.

Other barriers concern the families’ feeling of alienation and isolation; along with the fear of neglect by the primary physician. Families may have unrealistic expectations of future prognosis, and are affected by their social situation and level of education. Families also refuse admission to hospice which is considered as a place of death, isolated and unfriendly. Barriers associated with the palliative care team itself: the team is not well supported which leads to staff burnout. Continuous education and training are not always available and are badly needed.

Lebanon

The issue of palliative care was first tackled in Lebanon in year 1995, during a National Cancer Control Workshop. In May 1999 a symposium on palliative care and ethics was held in Lebanon and the following recommendations were adopted and submitted to the Ministry of Health and the WHO to be implemented:

1) A national policy for pain-free treatment
2) An essential drug list for pain and palliative care
3) Undergraduate training in palliative care for MDs and RNs
4) Reimbursement to physicians providing palliative care services
5) Establishment of a multidisciplinary approach for palliative care services
6) Strengthening home care and social assistance
7) The right for the provision of palliative care to all.

In year 2000 the Lebanese Pain and Palliative Care Initiative was launched, within the framework of the Lebanese Cancer Society.

The goals of this initiative were to:

1) Educate physicians and nurses palliative care principles including concepts related to quality of life.
2) Incorporate palliative care principles into the curricula of medical and nursing schools.
3) Develop postgraduate training programs for physicians and nurses.

Thereafter, nine fellows from the different Lebanese universities attended an End-of-Life (EPEC) course in the USA; and following their return to Lebanon 12-hour undergraduate curricula was developed in the medical and nursing schools, along with a continuing education program for practicing nurses.

In April 2001, the number of patients receiving opioids increased to 600, a ninefold increase as compared to 1995. In 2003 a symposium was devoted to palliative care to the elderly, and in 2004 a symposium was devoted to the role of the nurse in home care palliative care. In spite of the marked progress that was achieved in the past decade, palliative care in Lebanon is still delivered by physicians and nurses who lack the appropriate qualification. In year 2009 the Lebanese National Cancer Registry registered 9700 new cases. Only 5%-10% of patients received palliative care treatment, and over 90% of all palliative care services are provided in the large cities.

The current challenges that the Lebanese health system is facing include [29]:

1) Lack of knowledge and skills, as well as inappropriate attitudes among the health professionals.
2) Poor coordination of care.
3) Drugs availability and accessibility.
4) Lack of legislation and accreditation of this new specialty discipline.

As a consequence of the ongoing efforts in the past decade, the Ministry of Health created the National Committee for Pain Relief and Palliative Care, and the latter committee came up with a national plan that involved the following disciplines:

1) Education
2) Clinical practice
3) Research
4) Public policy

In summary, of high priority is to update the legislative system in Lebanon and bring it to recognize and integrate palliative care into the mainstream healthcare system. In addition, education and training in palliative care at the postgraduate level should be accredited and certified, special attention should be given to home-based services in the communities, taking into account specific cultural, social and economic settings.

Cyprus

There were 2700 new cancer cases a year 2009. The Republic of Cyprus has no organized palliative care services. Instead, these services have been left to non-for-profit NGOs: ‘The Cyprus Association of Cancer Patients and Friends’ (PASYKAF), and the ‘Cyprus Anti Cancer Society’ (CACS).

In-patients palliative care services/hospices

The current services are aimed exclusively to adult cancer patients. Palliative care, sometimes extending to end-of-life care, is also provided by the three hospital oncology Units, one of which is commercially funded and two government funded. In the ‘Turkish Northern part of Cyprus, the ‘Help Those With Cancer Association’ is functioning; while Turkish Cypriots have access to in-patient and day-care hospice and hospital services in the Government-Greek controlled facilities.

The Arodaphnouse Hospice (in-patient) has 15 beds and operates in Nicosia, the Chrysovalanton clinic (4 beds) operates in Limassol, and the Pafos Hospice (5 beds) operates in the Evaggelismos Hospital in Pafos.

Patients with palliative care needs can be cared for in the Nicosia and Limassol General Hospitals and in the Bank of Cyprus Oncology Center in Nicosia. The two main drawbacks of palliative care services in Cyprus are the fact that there are no palliative care services within the main public hospitals, and there is little cooperation between the two NGO’s in terms of provision of community palliative care services. As a result, patients in the public hospitals have no access to specialist palliative care teams, and there are no developed referral pathways from public hospitals to the palliative home care teams and hospices. The lack of cooperation between the two NGO’s home care teams results in a fragmented service that currently operates at patients’ homes only between 8 a.m. and 6 p.m.

Home care team

There are currently dual home care teams in each district by the two NGOs, and as a result both home care services offer a limited service over weekends and public holidays as well as no service for 14 hours from 6 p.m. to 8 a.m. every day.

Availability of opioids

The following opioids are available in Cyprus: codeine, oral morphine (immediate and controlled release forms), injectable morphine, fentanyl, methadone and dihydrocodeine. There is no significant overregulation for opioids, yet the total morphine equivalence in mg per person in 2009 was 17.9, which is still well below the world average. It, therefore, appears that neither regulatory restrictions nor opioid availability are the main reason for underuse of opioids in Cyprus. A recent cross-sectional study of 141 cancer outpatients receiving chemotherapy in the Bank of Cyprus Oncology Center revealed that whilst 82% of patients had pain,
only 47.5% were prescribed analgesia of which 37.6% were prescribed paracetamol and non-steroidal anti-inflammatory drugs, 1.4% weak opioids, and only 7.1% strong opioids.

visions and plans for the future
A new model of palliative care services, based on the UK/Australia practice is being proposed as a new partnership between public and charitable organizations. Whilst hospice and community services may remain within the charitable sector, there should be increased governmental support to the NGOs. Concomitantly the government needs to set up palliative care services within its own public hospitals.

Palliative-care certified physicians are going to be central in coordinating this kind of care. Instrumental in setting up there tasks and challenges, is going to be the New National Cancer Plan for Cyprus.

Setting up hospital-based palliative care support teams would be the biggest foreseeable challenge; as currently there are neither nurses nor physicians trained in palliative care within the public hospitals. These teams working within hospitals will offer an in-house consultant service, and facilitate their transfer to the community. For more complicated cases, they will facilitate referral to hospice care. The hospital-based teams will continually liaise with other services within the hospital as well as the home care teams to improve continuity of care, as well as provide education for both hospital and community health care professionals.

Turkey
In Turkey, palliative care as a medical discipline did not exist before 2010. Recently, the Turkish Ministry of Health initiated a new community-based palliative care project entitled Pallia-Turk. The rationale behind launching this initiative was to implement care along with cure to cancer patients at the community level.

Presently, there are only few palliative care services in Turkish hospitals, most of which are confined to pain clinics. According to the latest report by the International Narcotics Control Board (2007–2009), Turkey is rated number 50 globally with regard to the consumption of opioids (Table 2). To date, general practitioners and family physicians cannot prescribe morphine. Only a few specialists have the right to prescribe opioids on the special ‘red prescription forms’. Moreover, the majority of clinicians lack the appropriate training for pain assessment and management, including the use of opioids and handling their side effects. Taking into account this long-standing situation, the Ministry of Health decided upon changing the regulations concerning the use of opioids while implementing the new program of community-based national palliative care system.

The first step in implementing this project was to initiate the import of morphine tablets into Turkey. The MECC along with other international agencies was instrumental in promoting the availability of morphine for professional use in Turkey.

The second step in the project was initiating new legislation whereby family physicians (about 20 000 in Turkey) were enabled to describe opioids.

The third step involved the training of family physicians and community nurses about basic principles of pain management and palliative care.

Overall, by implementing this project nationwide, every citizen will have the ability to obtain palliative care wherever he lives. The project relies on the involvement of NGOs and local governments (municipalities) in sharing the financial burden.

The project is divided in three levels:
1. Primary level. Home care teams where the family physician will serve as the pivotal person along with a community nurse, driver and a medical secretary. When needed, a dietician, physiotherapist and psychologist will be added to the team. This service will be free of charge to all citizens. The family physician will be responsible to educate and train his/her patients and their relatives, and thereby save many unnecessary hospitalizations.
2 and 3. Secondary and tertiary levels of care. Patients with acute and/or sub-acute symptoms that cannot be handled by their family physician and the home care team will be referred to ‘Centers of Excellence in Palliative Care’. These will involve all the relevant experts in oncology, cardiology, pain experts, anaesthesiology, nursing, social work, psychology and spirituality.

current experiences
The new Pallia-Turk project has started in 2010. About 100,000 patients have been treated during the first 8 months of 2011. The number of house visits for palliative care purposes were 230,000 for that time period. In the year 2012, a cost effective analysis will be carried out by the Turkish Ministry of Health.

The first course for family physicians and nurses took part in Antalya in December 2011 and was organized jointly by the MECC and the San Diego Hospice Center for Palliative Medicine in the USA. More courses are scheduled for the year 2012 with the aim of establishing a core of local champions that will carry on the educational task in order to involve as many primary care professionals in the project.

Egypt
The National Cancer Institute (NCI) in Cairo was established in 1969 as a specialized institute, affiliated with Cairo University. In 2010, the NCI, Cairo has cared for 18 156 new cancer patients which comprised 70% of all cancer patients in Egypt. A total of 70% of all new cancer patients were diagnosed with an advanced stage of the disease. NCI’s first initiative towards the development of palliative care services was in 1981 when the first pain clinic was established as part of the Department of Anesthesiology. This clinic handles 120–150 patients daily, while slow release morphine tablets are the only available pain medicine.

At the present, NCI is running a pain care clinic at its outpatient pain department. This clinic operates on a 24/7 basis, and its staff comprises pain management physicians, specialized nurses, clinical social workers, pharmacists, psychiatrists, dietitians and administrative manpower. In addition, a hotline service was established, thus enabling easier
access to the experts on the team. In addition to the NCI, Cairo, the El-Kasr El-Aini Cancer Center in Cairo also runs a pain clinic and a palliative care service (started in 2007). The new Children’s Cancer Hospital 57357 in Cairo runs pediatric palliative care services including psychological support. The Cairo Evangelical Medical Society provides in-patient and day care hospice services (opened in 2001), while similar services are provided by the Elhadr Elromany hospice in Alexandria.

barriers to palliative care services

Egypt cannot expand palliative care services outside its capital, Cairo, due to the still awaited national program for palliative care. Furthermore, there is a lack of awareness and understanding of the importance of such services in the community. The great shortage of well-qualified nursing staff and volunteers also hinders the development of palliative care services in the community.

The Egyptian experience at its NCI in Cairo proved successful in extending needed services to cancer patients and their families, while saving unnecessary hospitalizations.

The big challenge to Egyptian palliative care professionals is the development of hospice systems along with well-organized home-based services. To achieve these goals, more education and training are urgently needed.

The population of Egypt is about 80 million inhabitants. Of all cancer patients only 20% will be cured. Such a situation imposes a tremendous challenge as far as palliative care is concerned. As a feasible short-term solution, it is proposed that all staff members in the oncology units throughout Egypt would gain basic practical training in dealing with cancer patients suffering from pain and other physical, psychological and spiritual symptoms. In order for such a plan to come about a ministerial-driven program is needed, whereby trained oncologists and oncology specialized clinical nurses be educated and trained in the following topics:

1) Communication skills between the clinical caregivers, the patients and their families
2) Basic concepts of pain pathophysiology
3) Pain assessment
4) Choosing of analgesics and their dosing
5) Management of visceral, somatic and neuropathic pain
6) Management of other symptoms such as nausea, vomiting, constipation and delirium
7) Wound care
8) Management of last hours of life including dyspnea
9) Overcoming cultural barriers.

Egypt has National Guidelines for:

1) Management of acute and chronic pain
2) Management of other physical symptoms

New guidelines are currently worked out for End-of-Life Care and for home-based hospice services. The NCI, Cairo offers MD and Master degrees in pain management and palliative care has been incorporated in the curriculum of the oncology nursing program in the same institute.

opioids

The consumption of opioids, mainly morphine, pethidine and fentanyl is very limited (Tables 1 and 2).

ethical, religious and cultural issues

Islam is the dominant religion in Egypt, and observant Muslims believe that having an illness represents an opportunity to enhance the Muslim’s degree or expiating personal sins. Yet, Islamic teaching encourages Muslims to seek treatment when they fall sick, as it is believed that Allah did not send down a sickness but rather a medication for it [25]. Muslim’s beliefs attribute to occurrence of pleasure and suffering to the will of Allah, and that every effort should be made to relieve suffering. Moreover, Islamic teaching considers the relief of suffering to be highly virtuous [26]. According to Islam, adults of both genders are granted the full right to accept or decline medical intervention. In reality, close family members are more often directly involved with the decision-making process. Generally, parents, spouses and older children, in descending order, have greater decision-making power than the other members of the family [27]. Islamic teaching encourages the community members to visit the sick and the sick to welcome their guests. Patients, therefore, may entertain a larger number of visitors during their hospitalization [25]. The use of drugs that might affect consciousness is strictly prohibited in Islam. However, medically prescribed opioids are generally permissible because of their necessity. Usually, patients and families accept the use of opioids for symptom management, provided the rationale for their use is clearly explained to them. Of great importance is to explain patients and their relatives the possible side effects, as there are great concerns about an imposed drowsiness [28].

Issues that relate to end-of-life are compounded spiritually and ethically, and are open for interpretations. While discussing the prognosis of the loved one, Muslim families are often skeptical about receiving clear cut massages from the treating physician. The former are for the most part more comfortable receiving less concrete information and quite often would respond with: ‘This is in Allah’s (God’s) hands, and we are not to predict the fate of the patient’. Such a response is largely due to the Islamic belief that the life expectancy of every person is only up to Allah, who is the one to determine the timing of death. Families, however, are very appreciative being updated as to the patient’s condition, in order to enable them to carry out the traditional funeral rites. Taking all of the above into consideration, caregivers in Egypt exercise all the precautions and sensitivity while talking to terminally ill patients and their families.

Palestinian Authority

The Palestinian National Cancer Registry reported that during the period of 1999–2003 5542 new cancer cases were registered while at the same time period 2305 people died due to cancer. About 70% of all cancer patients in the Palestinian Authority are diagnosed at a late stage of the disease (stage III or IV). In the East Bank the major oncology center is located at the Beit Jala Hospital, with a smaller unit at Al-Watany Hospital in Nablus. In the Gaza Strip the major oncology center is located...
at the Shifa Hospital in Gaza City, and a smaller unit at the European Gaza Hospital in Khan Yunis. Only 2.7% of all beds in Palestinian hospitals are assigned to oncology patients. Many patients from the West Bank are referred to the Augusta Victoria Hospital in East Jerusalem that operates a radiotherapy unit along with all other oncology subspecialties, i.e., medical oncology and pediatric oncology. Since there is no radiotherapy unit in the Gaza Strip, most patients in need of radiation are referred to Israeli hospitals. The Rantisi Children Hospital in Gaza City treats pediatric oncology patients, yet many children are still referred to Israeli hospitals.

To date, there are no palliative care services within the hospitals (governmental, NGO, private) in neither the West Bank nor the Gaza Strip. Also, no home care services are available in the Palestinian territories.

In 2008, the first NGO was established totally devoted to palliative care for cancer patients: the Al-Sadeel Society. The latter operates in the West Bank and its goal is creating a home-based and a hospice-based palliative care system. Its initial activities focused on education and training of physicians, nurses and the public (patients and their families) about basic principles of palliative care. The MECC has been very instrumental in promoting such activities along the support of the USA NCI. The Society’s activities rely of volunteerism. In the hospitals and the community, nurses are playing the major role not only in promoting public awareness and support, but in caring for pain and other cancer-related symptoms.

Management of pains generally, and of cancer-related pain is complicated due to the following reasons:

1) Pain medications are not available and are not accessible
2) Rigid regulation concerning prescriptions
3) Public attitude, Overall the public believes that bearing pain is an existential issue and therefore is reluctant to use opioids because of its social stigma. Morphine is associated with end-of-life and death
4) Mistrust among staff members as well as between caregivers- patients and families
5) Lack of updated education and clinical training to both physicians and nurses.

Israel

The modern palliative care movement in Israel began in the late 1970’s by nurses together with the Israel Cancer Association (ICA) who established a postgraduate specialist oncology nurse training program. The latter included components of palliative care and symptom management, which led to the first community home care service run by trained nurses [32].

In 1983, the ICA opened the first in-patient hospice for adult cancer patients in Israel. This event marked the recognition of palliative care as an essential component of cancer control programs and the start of palliative care services in hospitals and in the community.

Since the 1990s, despite lack of government funding and support, further development continued concerning policy, service implementation, medication access, professional education, research and public awareness [33, 34].

Policy and advocacy

There are three national professional organizations that are actively involved in promoting awareness, organizing training programs and providing support for palliative care services and research. These are the Israeli Association for Palliative care (IAPC-Isr), a non-for-profit multi-professional organization (www.palliative.org.il), the Israeli Palliative Medicine Society, a member of the Israeli medical Association and the Israeli Cancer Association (ICA, www.cancer.org.il). Through collaborative work, they contributed significantly to the development of palliative care in the country.

Israel has a national health insurance (NHI) law, that insures that all Israeli citizens, irrespective of their income or age. Until recently, palliative care was not included in the national insurance plan.

In 2005, a palliative care steering committee was established (commissioned) by the Israeli Ministry of Health (MoH) [35]. The committee’s role was to describe and define the necessary requirements for the incorporating palliative care in the Israeli health care system and assist the MoH in the development of a national policy and standards of care. In 2009, Israel’s national palliative care policy document was issued as a ministry’s decree. The policy requires that by 2013, each health plan and all medical institutions, including long-term care facilities, must develop and provide comprehensive high quality palliative care services as defined by international standards to all patients in need. The policy also defined the minimum training requirements for palliative care professionals and emphasizes the institution’s and healthcare management organization (HMO)’s responsibility for providing the required training for each team member. Currently, all hospitals and the HMOs are actively working towards implementing the policy’s requirements.

Parallel to these efforts, in 2006, the Israeli parliament enacted and fully activated the ‘Dying Patient Law’. This law presents a well-balanced consensus between the values of patient autonomy and sanctity of life. It clarifies and regulates the medical end-of-life care in the country. Although the law enables all patients to write advanced directives, it is usually applicable only to end-stage cancer patients. In addition to regulating medical end-of-life care, it specifically stipulates that palliative care must be offered and provided to all patients and families confronted by life-limiting diseases.

In 2010, pain medicine was recognized as a new specialty, and several pain clinics now provide post-graduate fellowship programs. Palliative care professionals are working with the Israeli Medical Association to recognize palliative medicine as a medical specialty as well [36].

Service provision

Currently, palliative care in Israel is provided by a wide range of services including in-patient units, acute care hospital consultation teams, community-based oncology units, primary care clinics, home-based services and volunteer hospices. There are four certified in-patient hospices in Israel with 76 beds, serving about 1000 patients per year. In addition, six geriatric hospitals have recently converted some of their long-term care units into acute palliative care units thus significantly enlarging...
the number of palliative care beds. In many acute hospitals, palliative care consultation services are offered by nurses with training in oncology and palliative care, and/or by physicians with palliative care expertise and interest [37]. Almost all oncology departments provide varying levels of palliative care, whereas three have fully comprehensive accredited services including in-patient care. However, such services still need to be more visible to the staff of the hospital who are often unaware of its existence. In contrast, all pediatric oncology departments provide high-level comprehensive in-patient and home based palliative care [34].

There are over 500 certified oncology nurses nationwide, most of whom have received palliative care education and training and provide care in hospital oncology units or in community health settings. They play a pivotal role in coordinating hospital and community services, developing and implementing oncology and palliative projects within their region or institution. A 24-hour telephone help-line service is provided by these nurses.

Israel's four health insurance plans cover home-based care units across the country. Most units provide some level of palliative care ranging from symptom control and support, while other full comprehensive 24-hour home hospice care, along with spiritual, bereavement and volunteer support.

However, the extent and quality of home-based palliative care varies greatly between different regions in the country. In some urban areas/regions the service is very good and readily available; in others, the services may be less professional and lack availability.

In spite of the increased availability to palliative care services there are patients, especially in rural areas, that lack such services.

Recently, due to regulatory requirements, most geriatric hospitals and institutions have begun integrating modern palliative care approach into their care practices.

Accordingly, the overall number of teams providing palliative care increased from 14 to 24.

**opioid availability and pain control**

The status of opioid availability and pain control has improved substantially over the last 15 years, due to the concerted campaigning for pain and palliative care advocates [38, 39].

Currently, a wide range of opioids are available and accessible and they can be prescribed by any physician and are free of charge for cancer patients. The current law permits physicians to prescribe up to 10 days supply of opioids per written prescription which can be increased up to 30 days supply upon justification.

Figure 2 shows that during the period of 2007–2009 the consumption of the five strong opioids (morphine, oxycodone, pethidine, methadone, and fentanyl) increased by 2.6 times. This rise was in large due to a 4-fold increase in the use of transdermal fentanyl; also the consumption of oxycodone increased by 50% while methadone consumption rose by 15%. In contrast, morphine consumption dropped by 50% and that of pethidine by 65% [40, 41].

Tramadol is used quite extensively for moderate to severe pain as its use is subject to fewer restrictions.

Propoxyphene and its derivatives have recently been taken off the market.

The use of cannabis for pain and symptom control has been approved by the health authorities since 2005. Despite strict regulations, its use has dramatically increased from 64 patients in 2005 to approximately 7000 patients in 2011.

Adjuvant analgesics for neuropathic and other complicated pain syndromes are also highly available and can be prescribed by most physicians both in institutional and community settings.

The national guidelines for the management of cancer and non-malignant-related pain are regularly updated. All Israeli hospitals and long-term care institutions are required to have written standards regulating the assessment and documentation of pain, and incorporate them as the fifth vital sign [41].

**palliative care education and training**

Pain and palliative care education and training have been incorporated in the training curricula of all medical schools, family residents training program and all postgraduate oncology and other chronic disease nursing training program.

The Israeli National Palliative Care Training (INPACT) Program was launched in 2006, with the goal to develop and implement educational programs for multidisciplinary health care teams at all levels of care. Since its establishment, over a 1000 health care professionals from hospitals, long-term care facilities and community settings have undergone training and the program continues with more institutions developing similar training programs [37].

In addition, 1- and 2-year diploma courses in palliative care are offered for physicians, nurses and social workers at some of the universities. Many services also train volunteers.

In addition to formal education programs, there are a variety of training programs for social workers, psycho-oncologists, spiritual counselors and chaplains, family caregivers that are organized by national associations, individual palliative care services, NGOs and private institutions. Israel holds every year several national conferences dedicated to pain and palliative care.

Israel has significant palliative care research activity, and links to international organizations such as EAPC and ESMO and MECC.

More recently, the nursing division in the MOH recognized palliative care as a new subspecialty for nurses. In fact, it is the first recognized subspecialty in nursing in Israel. There are currently 35 clinical nurse specialists in palliative care, who provide palliative care at both institutional and community settings throughout the country [33].

**challenges**

Despite the appreciable accomplishments in the palliative care scene, important challenges still remain. These include: raising the awareness and knowledge of palliative care among health care professionals and providers; monitoring and surveillance of the implementation of the national palliative care policy; introducing more core palliative care curricula at all levels of all health professional training; and educating the public
regarding their legal right for palliative care services. Other challenges include changing the current opioid dispensing regulation to enable emergency opioid prescription by phone or fax, and the expansion of palliative care services to a larger number of patients and illnesses throughout the country.

**Summary**

For too long, pain and its management have been prisoners of myth, irrationality, ignorance and cultural bias. That is why insufficient pain management is a significant public health concern in Middle Eastern countries and adequate relief relies on access to a variety of treatment options. Making real improvements in pain management will require the proactive efforts of many organizations, and we believe that education as well as discipline should be the cornerstone of efforts to improve palliative care in general and pain management specifically [23].

In Middle Eastern countries, most of the programs in palliative care have largely been driven by the non-governmental sector. This has resulted from an extraordinary collaboration between the state, NGOs, healthcare professionals, and volunteers. Until we can reliably and easily cure cancer, it is imperative that the principles of palliative care be incorporated into comprehensive cancer control programs. In most Middle Eastern societies, the family keeps close ties with all its members, and consequently, at time of trouble, the entire family gets together to help and assist the family member involved. Hence, in practice the family can function as a palliative care unit at home. The Turkish Ministry of Health has recently launched a new national project entitled Pallia-Turk whereby palliative care will be strongly endorsed. This project will lend special importance to the development of new community-based family physicians including pediatricians and nurses and creating a new palliative care model – thus strengthening the provision of palliative care in the community [27].

It is recommended that the palliative care team follow the patient across the trajectory of the disease. The initial palliative care assessment is aimed at getting a sense of the patient’s baseline physical and emotional status, so the team can help more effectively when the diseased person starts to go through the treatment procedures.

If end-of-life care is needed, the team knows the family members and their psychological and spiritual issues, which can make end-of-life care a lot easier for everyone concerned, including the staff [42, 43].

Let us not forget that the biggest institutional obstacle to palliative care is the struggle between cure and palliation. On the oncology side, many still see palliative care as end-of-life and do not see it in broader terms. Even in the palliative care community, many still convey themselves as end-of-life caregivers. So, it is a problem that is being perpetrated on both sides.

It should be noted that if a new palliative team wants to start a palliative care service at a hospital or clinic, they need to begin at the bedside helping one patient at a time. They need to show everyone what they can do because many people still do not know what palliative care is. They need to treat the service that they want to establish as if it were a private practice; they need to be there, be available, and also be palliative for other staff members [44].

Taking into consideration the current status of palliative care in the various countries in the Middle East, it seems that the most urgent task would be to focus on the education of professional staff members, physicians and nurses, in order to come up with a reliable, updated nucleus of experts who would be responsible for the development of modern palliative care teams. This objective can be accomplished via national and regional training courses along with well-formulated didactic courses and bedside training in each country organized by either respective national organization, ministries of health or universities and medical centers [45].

A third party such as the American Society of Clinical Oncology, the American Oncology Nursing Society, the Middle East Cancer Consortium, or others can facilitate the organization of such educational activities in the region. Also, we strongly feel that spending a year in a leading palliative care center in North America would be advantageous in cultivating the local champions that would then initiate local training and educational activities in their own institutes. MECC partners are now working to introduce basic guidelines for palliative care, including the communities. After 6 years of efforts, the project is starting to bear fruit. It will be, however, slow because palliative care has a very profound cultural and religious element that has to be taken into consideration [12].

Approaching people in developing countries with a sense of humility and willingness to learn from them as well as teach them is critical for success. The palliative initiative that MECC has undertaken is going to be a rewarding one because, while we start with the Middle East, one can take the information and experience on how we did it to other developing regions as well. Moreover, lessons learned from other cultures can be applied in the Middle East. As already indicated above, there are some very simple things that could be done to improve the life of the cancer patient. Things like spending time with him/her and making sure that there is company around, rather than relying exclusively on medication. Yes, in developed countries, palliation relies to a great extent on medication, yet there are many things in addition to medication that one can do to improve the quality of life throughout the illness.

Of note, the Middle East has been experiencing political conflicts throughout the last century, and it feels as if social structures of countries in the region are currently changing. Cancer palliation is a strong candidate to serve as tool to overcome cross-border political and social conflicts [46–48]. MECC’s commitment to the universal allegiance of medical professionals to the relief of suffering is reinforced by the dialogue of different cultures and beliefs, and this may provide a seed of tolerance, respect and understanding for the entire region [49]. MECC is committed to cancer palliative care, despite disagreements between the local governments and their policies. In MECC – with people from many countries, and many cultural and religion heritage – common goodness and caring are the dominant spirit. With this kind of approach MECC activities center on taking care of patients and their families not just the disease [50].
The authors declare no conflicts of interest.

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