The Facts

Cancer is a complex disease with the appropriate treatment of most cancers requiring a multi-faceted approach. The optimal strategy incorporates a method of early detection; diagnosis, often requiring the removal of tissue (biopsy) to detect the presence of cancer; pathologists to examine the biopsy specimens; and then a multidisciplinary team of cancer professionals. This team includes cancer surgeons, medical oncologists, pathologists, nurses, palliative care physicians, radiologists and radiation oncologists, as well as the infrastructure each needs to provide appropriate care.

Currently, cancer patients in many countries do not have access to some or all of these essential cancer services. Patients whose diseases are curable in the developed world unnecessarily suffer and die due to a lack of resources that enable early diagnosis and appropriate treatment. National Cancer Control Plans (NCCPs) must be developed to meet the needs in all of these areas, and to ensure that cancer is diagnosed early when the chance of cure is greatest.
A Global Solution

The implementation of robust cancer care infrastructures throughout the developing world are urgently required that cover the full spectrum of multidisciplinary cancer services that include:

- Education, prevention and early detection programmes
- Capability and capacity to perform diagnostic biopsies
- Capability and capacity to process and interpret pathology specimens
- Capability and capacity to perform safe and effective cancer surgery
- Capability and capacity to safely administer chemotherapy and other systemic therapies
- Capability and capacity to administer radiation therapy
- Capability and capacity to administer palliative care and relief of symptoms and suffering

Supporting Evidence

Models for the successful delivery of cancer care are already being implemented in some developing countries using locally appropriate protocols that take into account resource constraints to appropriately diagnose and treat patients. However, policy makers must understand that without each of the critical components of a multidisciplinary approach, high quality cancer care is not possible.

The most effective and efficient treatment programmes are those that are linked to early detection, with the infrastructure in place for accurate diagnosis that in turn underpins an appropriate and successful treatment plan. Diseases such as breast cancer, cervical cancer and colorectal cancer require early diagnosis and surgical removal of the primary cancer, and in some cases adjacent lymph nodes. Without early diagnosis, and without the availability of appropriate surgery, there will be no chance for cure. For diseases such as Hodgkin’s lymphoma, diagnosis requires adequate tissue for pathology analysis obtained by biopsy, a skilled pathologist to make the diagnosis, chemotherapy, and physicians, nurses and an infrastructure to administer the chemotherapy. With all of these in place, the vast majority of these patients, who are typically young adults with a long potential life in front of them, will be cured of their disease. Without the critical components, the patient will invariably die unnecessarily, and with avoidable suffering. Denial of curative therapy to patients where solutions exist such as this should be considered unacceptable.

In many cases the largest, and most unacceptable gap in cancer care is the lack of adequate palliative care for much of the world’s population. Unnecessary suffering, when we have the tools to relieve that suffering, should be viewed as unacceptable from all points of view. Governments and healthcare systems must confront and eliminate this gap.

For patients cured of their cancer, or living with their cancer, the provision of cancer survivorship care is critical for patients to return to a good quality of life. Mitigation of the effects of the cancer and treatment on the patient, establishment of a healthy lifestyle, and screening for new cancers becomes a key focus.

Meeting the Challenge

Successful programmes in many low resource settings around the world provide effective team-based, multidisciplinary care, dispelling the myth that this approach is only feasible in high resource settings. Locally appropriate solutions tailored to the resource setting that provide sustainable and equitable services linked to early detection and that best utilize a multidisciplinary approach to care will achieve significant cuts in the global cancer burden. What is urgently required is the political will to ensure that these solutions are integrated into National Cancer Control Plans.

UICC’s Response

The UICC Cancer Outcomes Statement, a set of action-oriented objectives, supports the delivery of the 11 targets of the World Cancer Declaration and calls for the following:

By 2018, provide access to cost-effective diagnostic and multidisciplinary treatment strategies with proven clinical efficacy.
Burkitt’s Lymphoma: success of chemotherapy in improving survival in the poorest nations.

One of the most spectacular examples of how chemotherapy can be successfully delivered in low resource settings is the treatment of Burkitt’s lymphoma—a fast-growing cancer that although rare in high income countries is the commonest of childhood cancers in equatorial Africa, causing 3000 deaths every year. Chemotherapy using inexpensive, readily available drugs is highly effective and can be delivered safely in low-resource settings. In India and Egypt, adoption of standard protocols has resulted in survival rates rising from 45% to 70-80%.

Research is critical to assess the effectiveness of treatment programmes in these settings, as is the use of these data to refine and improve treatment. Founded in 1998, the International Network for Cancer Treatment and Research (INCTR) aims to promote evidence-based practice through long-term research projects investigating the most effective approaches to cancer care in specific settings, and supporting the growth of centres of excellence and training networks. Currently, the African Burkitt Lymphoma Strategy Group comprised of investigators from Cameroon, Kenya, Nigeria, Tanzania and Uganda has implemented a study protocol entitled, “The Treatment and Characterization of Burkitt’s Lymphoma in Africa”. Over 400 patients have been enrolled on the protocol with preliminary data showing it is possible to cure a significant fraction of patients, even those who relapse or partially respond to initial treatment. In addition, the preliminary reports indicate a significant improvement in managing patients with Burkitt’s Lymphoma. The team approach to patient care is now well established in these centres, supportive care and patient follow-up has improved, accurate and complete data for all study patients are being collected, and data monitoring is performed.


Breast cancer is now the most frequent cause of cancer death in women in both developing and developed regions with the range in age-adjusted survival rates from 32% in sub-Saharan Africa to 81% in the United States reflecting a significant disparity in the access to quality health care in different resource settings1-3.

The Breast Health Global Initiative (BHGI) has been a leader in developing, implementing and studying evidence-based, economically feasible and culturally appropriate “Guidelines for International Breast Health and Cancer Control” for low- and middle-income countries to improve breast health outcomes. In the BHGI guidelines for early stage breast cancer, modified radical mastectomy rather than breast-conserving surgery is the recommended course of treatment in low resource settings when radiation therapy is unavailable4. Where resources are available, complementary interventions such as breast conserving surgery with post-operative radiotherapy, and breast reconstruction are recommended5.

The BHGI guidelines also include the use of off-patent systemic drugs that provide contemporary breast cancer treatment with outcomes comparable to those seen today in high resource settings6. Tamoxifen, a specific hormone therapy for the treatment of hormone-receptor positive breast cancer, is a proven low-cost, effective drug that is recommended for areas with a basic level of resources1. Indeed, while newer hormone therapies are recommended in higher resource settings for postmenopausal patients4,5, the ultimate reported difference in overall survival between these and tamoxifen is marginal6. And again in this case adequate pathology is required. Only patients whose tumors are positive for estrogen receptors will benefit from drugs such as tamoxifen, and this test is unavailable in much of the developing world.

References

In 2009, UICC co-founded the NCD Alliance with the International Diabetes Federation and World Heart Federation. The International Union Against Tuberculosis and Lung Disease has since joined the Alliance, which now represents the four main NCDs and the interests of 880 member organisations in more than 170 countries.