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Securing global access to innovations in women's cancer care and control

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A standing ovation is a form of applause where members of a seated audience stand up, while applauding after extraordinary presentations of particularly high acclaim. It is not often that one can witness such enthusiastic recognition when attending a very large busy international scientific conference. However, at the annual meeting of the American Society of Clinical Oncology of 2013, I had the privilege of attending the plenary session presentation of Dr Shastri, in which he spoke on the efficiency and cost-effectiveness of visual inspection with acetic acid (VIA) for cervical cancer screening. Screening with VIA among 150 000 women in rural India by trained paramedical workers resulted in a 31% reduction in cervical cancer mortality [1]. VIA screening is easily implementable and could prevent 22 000 cervical cancer deaths in India and 72 600 deaths in resource poor countries annually [1]. This presentation was followed by a very long applause escalating to a standing ovation of the entire audience of some 10 000 meeting attendees. It struck me that this spontaneous reaction not only reflected the deep appreciation for the work of Dr Shastri and his colleagues in the Department of Preventive Oncology at the Tata Memorial Center in Mumbai India, but it also told me how important it is for the listening oncology community to find solutions for the ever growing disparity in cancer care between low-middle-income countries (LMICs) and high-income countries (HICs). Almost 70% of the global burden of cervical cancer occurs in less developed countries, where it is the second most commonly diagnosed cancer and third leading cause of cancer death among women since access to prevention, screening, and treatment measures considered to be standard of care in HICs is limited in LMICs [2]. In this issue, Pimple *et al.* (pp. 4–10) address the current developments of cervical cancer prevention and control in both LMICs and HICs and attempt to identify new strategies that may help address the gaps in cervical cancer care disparities globally.

Furthermore, Dueñas-González and Campbell (pp. 11–17) from the Instituto Nacional de Cancerología in Mexico City review in their article

global strategies for the treatment of early and advanced cervical cancer. Their study summarizes standard of care practices for early and advanced cervical cancer, highlights recent advances regarding fertility preservation, sentinel node mapping, neoadjuvant chemotherapy, and innovative systemic treatments for advanced disease, but also emphasizes that social and economic factors still impede the uptake of recent therapeutic advances in LMICs where many patients have no access to the appropriate resources.

Mesko and Kamrava (pp. 18–23) from the University of California review recent advances in external beam radiation therapy, brachytherapy, and stereotactic body radiation therapy for the treatment of cervical cancer. Although these advances in radiation therapy for cervical cancer are driving improvements in local tumor control and reducing toxicity rates in HICs, results from large scale comparative studies with long-term clinical follow-up, including results on cost-effectiveness, are still pending. Such data are incredibly important as they would help define new global treatment standards and as a result facilitate the implementation of these advances in economically less-developed regions.

Although preservation of ovaries may be an option in early stage cervical cancer, the ovarian failure rate is still high and many premenopausal women will have reduced or absent ovarian hormone production as a result of cervical cancer treatment. O'Donnell *et al.* (pp. 32–41) from the University of Manchester review the complex and controversial area of hormone replacement therapy following treatment for cervical cancer and other gynecologic malignancies. As there is little robust evidence to provide guidance regarding hormone

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replacement therapy for women following a diagnosis of gynecologic cancer, the authors provide valuable insights to evaluate the risk and benefits on a case-by-case basis to balance the potential risks with reduced menopausal symptoms and protection against cardiovascular and skeletal morbidity.

Equally important to effective and affordable screening efforts for cervical cancer are prevention strategies. However, economically less-developed regions of this world also face financial and logistic limitations to make human papillomavirus (HPV) vaccines available to their populations. As Pimple *et al.* (pp. 4–10) point out in their article, high costs of the current vaccines and absence of necessary logistics for vaccine storage and transport significantly limit the introduction of HPV vaccines in LMICs. However, the authors also described ongoing global vaccine delivery strategies that will increase their uptake in economically less-developed regions. The Global Alliance for Vaccines and Immunization (GAVI) has boosted efforts to facilitate introduction of HPV vaccination in LMICs through provisions to supply HPV vaccine at a formidable low price of less than US\$ 5.00/dose (<http://www.gavi.org/funding/>). Founded as a public–private partnership GAVI receives direct contributions from donor governments, and personal and private sector philanthropy. As a founding partner of GAVI the Bill and Melinda Gates Foundation has brought international attention to the cause of immunization and has made several commitments to GAVI, totaling US\$ 4.1 billion to date (<http://www.gavi.org/funding/>). GAVI's initial impact is evidenced by the changing production and supply base, in particular with pentavalent and tetravalent vaccines, accelerated price decreases and tiered pricing that enables poor countries to pay significantly less than higher-income countries for the same vaccine. GAVI's business model is unique in that it not only pays for the vaccines, but also spurs their development and expanded production driving down the cost.

In light of the increasing disparity in cancer care between both HICs and LMICs, it is fair to raise the question whether a model similar to GAVI could be envisioned in oncology to enable global access to newer cancer therapeutics that are not yet available for patients in economically less-developed regions.

This quest would be particularly important to help implement recent advances pertaining to expensive novel targeted therapies. Progress in personalized cancer care has been strong in some parts of the world as illustrated in four articles in this issue highlighting major advances made in the treatment of breast and ovarian cancer. Hurvitz and Mead (pp. 59–69) describe recent advances in

the characterization and treatment of triple negative breast cancer. Walsh and Hodeib (pp. 24–31) highlight the development of PARP inhibitors, including olaparib which was recently approved in Europe and the United States for the treatment of select patients with recurrent ovarian cancer. Moreover, major progress has been made in the treatment of patients with hormone-receptor positive advanced breast cancer culminating in the approval of a first-in-class oral cell cycle inhibitor, which led to a significant improvement in progression-free survival when given in combination with hormonal therapy [3]. Lebeau and Kühn (pp. 49–58) finally update us on recent advances in the treatment of ductal carcinoma *in situ* of the breast and how new approaches for risk estimation may allow us to personalize treatment for patients diagnosed with ductal carcinoma *in situ* in the near future.

Importantly, however, LMIC healthcare service budgets will not likely be able to support the cost of these new developments in oncology. In fact, most, if not all, national healthcare services worldwide are unlikely to further support the current explosion in the cost of new oncology treatments. Nevertheless, there are some bright examples that allow us to be optimistic that financially sustainable progress in oncology and global health equity may still be achievable. Gilead Pharmaceuticals has given us an outstanding example how it was possible to work with national governments and local organizations to increase access to expensive HIV and hepatitis medicines. Generic licensing partners and generic drug manufacturers in India, China, and South Africa play a major role in expanding access to Gilead HIV and hepatitis medicines in developing countries (<http://www.gilead.com/responsibility/developing-world-access>). Today, 99% of Gilead HIV therapy used in LMICs is produced and sold by licensing partners who have applied their skills in process chemistry and large-scale manufacturing to lower prices 80% over the past 8 years. In 2011, Gilead was the first innovator pharmaceutical company to join the Medicines Patent Pool to expand access to its medicines through the sharing of drug patents. The Medicines Patent Pool was established by UNITAID, a Geneva-based global health organization that works to make high-quality, life-saving treatments, and diagnostics more affordable in LMICs (<http://www.gilead.com/responsibility/developing-world-access>).

The roles of pharmaceutical industries, not-for-profit foundations, health insurance companies and governments will be crucial to stop and reverse the growing global divide in cancer care in the long term. All stakeholders should work to improve global access to therapeutic options for the patients

they aim to help. The assembled articles are testimony of the incredible opportunities that exist to move cancer prevention, screening, and personalized care forward but they also emphasize the need to do this in a financially sustainable way to help advance and secure global health equity.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Shastri SS, Mitra I, Mishra GA, *et al.* Effect of VIA screening by primary health workers: randomized controlled study in Mumbai, India. *J Natl Cancer Inst* 2014; 106:dju009.
2. Shastri A, Shastri SS. Cancer screening and prevention in low-resource settings. *Nat Rev Cancer* 2014; 14:822–829.
3. Finn RS, Crown JP, Lang I, *et al.* The cyclin-dependent kinase 4/6 inhibitor palbociclib in combination with letrozole versus letrozole alone as first-line treatment of oestrogen receptor-positive, HER2-negative, advanced breast cancer (PALOMA-1/TRIO-18): a randomized phase 2 study. *Lancet Oncol* 2015; 16:25–35.