Innovation as a Model for Sustainability in Oncology

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Lung Cancer in the US

- Tratamento (dados de 2010) $12.1bn
- Industria do cigarro (dados de 2011) $8.8bn
- Rastreamento TC de baixa dose (dados de 2015) $1.9bn
- Programas antitabagismo (dados de 2011) $460M
- Pesquisa (dados de 2012) $315M

Cost of Lung Cancer

- 2010: $12B
- 2015: $12B
- 2020: $18B

J Natl Cancer Inst 2011

NATURE | S3 VOL 513 - September 2014
Improved Overall Survival as a Result of Combination Therapy

Immunotherapy uniquely offers durable response

Combination Therapy approach holds better promise
IMMUNOTHERAPY CONUNDRUM

**Groundbreaking Outcomes**

Patients who respond often have durable responses (potential cure)

**Earth-Shattering Costs**

No biomarker test yet available identifies appropriate patients for treatment

“Super responders” may live for years, with no signals for discontinuation, inflating long-term costs

Combining immunotherapies can increase response rate, as well as cost and toxicity
How to broaden access to a better cancer care in Brazil through innovation?
THE VALUE OF INNOVATION IN ONCOLOGY

1.1 WHAT IS MEANINGFUL INNOVATION FOR CANCER PATIENTS?

The personalised medicine revolution changed the way that cancer is fought by changing the way the disease is understood. It is now known that cancer is not a single disease, but rather a group of many different conditions. Therefore, there cannot be a single definition of innovation for all cancers and for all cancer patients.

However, ECPC recognises that there are general considerations common to all cancer patients. To be meaningful for patients, innovation should aim to:

Promote patient-centred, multidisciplinary care that makes optimal use of all therapeutic modalities - including medicines, radiation oncology and surgery - together with diagnostic, prognostic and screening technologies. Truly multidisciplinary care is underpinned by novel and effective enabling systems, including patient-centric care pathways, service delivery models, education methods, patient empowerment approaches, digital infrastructure and financing that are necessary to realise the benefits of novel technologies.

Improve upon existing care. Innovation is not meaningful unless it adds benefit. Specifically, innovative cancer care approaches should aim to improve the quality of life (QoL) of patients, as well as to extend life (also see p. 26). Better disease management through innovative approaches may also improve the efficiency of healthcare systems by preventing the need for other - often expensive - services such as hospitalisations and additional procedures. However, this must be carefully evaluated.

Reduce inequalities in care. Introducing innovative technologies must not create new inequalities, but rather should help curb the existing ones. Wide disparities exist between and within European countries in access to innovative care, as highlighted in the ECPC Position paper “Challenging the Europe of disparities in cancer” and other reports. A recent analysis by the European Society for Medical Oncology (ESMO) identified ‘large and clinically significant differences in the formulary availability, out of pocket costs and actual availability for many anticancer medicines in Europe’. The disparities were greatest in Eastern Europe and related in particular to expensive treatments for incurable cancers. Important variations and inequities also exist in access to quality and innovative oncology and explore the challenges that affect its use in daily practice.
Convincing Policy Makers to Afford Immunotherapy
Carlos Gil Ferreira, MD, PhD

WCLC, Toronto 2018
Increasing access to next-generation sequencing in oncology for Brazil

Marcos Santos, Renata A Coudry, Carlos Gil Ferreira, Stephen Stefanis, Isabela Werneck Cunha, Mariano Gustavo Zalis, Luiz H Araujo

Lancet Oncology, 20 (1), Jan 2019: 20-3
How to develop a genomic/precision medicine/big data/cancer information project focused on sustainability within Oncoclinicas?
Oncoclinicalas Innovation Model

Oncoclinicalas as a Cancer Information Organization

- Longitudinal cohorts (real world data) with nested pathology and genomics (biobanks) for clinical trials and drug repurposing
- Health economics, value-based pricing, outcomes-based contracting, cost-effectiveness studies
- Connected health, telemedicine, patient reported outcomes, value-based medicine
- Collaborative research, big data analytics, knowledge-enhanced cognitive computing solutions
Perspectives

- Brazil has a very sophisticated, yet not efficient healthcare system
- Building bridges for access is the challenge
- Precision medicine is the basis of contemporary oncology
- “Precision to Access Model” can have a Brazilian DNA