Quality of Cancer Care

From initial screening to palliative care

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2020: 6 trends for cancer care

1. Increasing development of ambulatory surgery
2. Drop in the number of radiotherapy sessions
3. Development of homecare chemotherapy
4. Systematic cancer cell screening for better drug choice
5. Less invasive procedures through Interventional radiology
6. Global patient care based on the appropriate supportive care
1. Increasing development of ambulatory surgery

Ambulatory surgery will represent:

Today | Tomorrow
---|---
Breast cancer 17% | 50%
Ovarian cancer 3% | 15%
Thyroid cancer 1% | 15%

We expect:

-20% decrease in traditional beds
+40% increase in ambulatory places
2. *Drop in the number of radiotherapy sessions...but with longer sessions*

We expect an important decrease in the number of radiotherapy sessions for the following cancers:

- **50%** of Lung Cancers
- **45%** of Breast Cancers
- **35%** of Prostate Cancers

1 per-op radiotherapy session could replace **25 sessions for one patient**

To reach this target we need recent radiotherapy machines, new protocols (hypo-fraction radiotherapy), new pricing...
3. Development of homecare chemotherapy

Oral therapies will support the development of home care for cancer patients (breast +++)

- 50% of chemotherapies will become oral
- Home care will cover IV and Oral therapies for 15% of breast cancer at all stages (3% today)
- Specific training is needed for general practitioners (GPs) and nurses
- Agreements will be signed between hospitals and GPs, Pharmacists, nurses
- Empowered patients will manage their own treatments
4. Systematic cancer cell screening for better drug choice

Bio-molecular cancer screening will become systematic.

Bio-pathologists and onco-genetics will be work together in the same platforms.

Cancer screening will be offered to families at risk.

50% of the diagnostic approach will rely on molecular biology

Like other countries, Lebanon needs strong bio-molecular platforms shared by several hospitals.
5. **Less invasive procedures through Interventional radiology**

Technology will support this evolution: 3D imaging, robotic support, MRI mapping, new drug delivery systems...

Metastasis are the preferred target (bone, liver and lung)

**We expect the following changes:**

- **Interventional radiology procedures** ×4
- **Bone metastasis** 50%
- **Liver metastasis** 30%
- **Interventional radiology**

- **MRI procedures** +36%
- **CT Scans** +16%
- Delivered in an ambulatory environment

Hospitals need a new organization with an increased presence of the radiologists
6. **Global patient care based on the appropriate supportive care**

Supportive care is needed during the active treatment period and after. We expect an increase in the number of dedicated professionals.

- 2 MDs for palliative care
- 2 MDs for pain management
- 3 diet specialists
- 1 certified beautician
- 4 social workers
- 3 psychologists
- 3 physiotherapists

For 10,000 patients per year the oncology department will need...
How can we face the 6 challenges?

- A single hospital cannot manage the 6 expected changes
- These changes are much easier to support through a national cancer plan
- Bio-molecular screening needs shared platforms and public-private partnerships
- It’s all about coordination and networking at each level

Any failure in communication, coordination and patient involvement will have a terrible impact on the quality of care and finally on the overall survival of the patient.
Lessons learned from the French experience

- France decided to launch its first national cancer plan in 2003 (2003 – 2007). It has been fully implemented on time with the strong support of President Chirac.

- The second plan was more focused and covered 2009 – 2013.

- The third one covering 2014 – 2018 will focus more on prevention, training, personalized medicine and global patient care.

- One of the most advanced initiatives is the implementation of 28 bio-molecular platforms for cancer screening. It offered full access to biomarkers to the population with a strong quality control.
The example of the fully implemented French national cancer plan
The first two plans are very well documented

http://www.e-cancer.fr/
The third cancer plan (2014 – 2018) has just been announced by our president

- **La prévention**, avec la prévention primaire s’appuyant sur l’information et l’épidémiologie, et la prévention secondaire (dépistage). Le Président de la République a annoncé que le Plan comporterait des dispositions pour prévenir les risques professionnels et aurait également pour objectif de réduire les inégalités.

- La recherche au travers de deux objectifs : le développement de la médecine personnalisée et le rapprochement des structures de recherche et de soins.

- La prise en charge avec les enjeux majeurs du vieillissement de la population et de la mutation des thérapeutiques.

- **La formation** que le Président de la République a souhaité mettre au cœur de ce nouveau Plan : « Ce futur Plan cancer sera également un plan de formation ».

- **La vie pendant et après le cancer**. François Hollande a notamment abordé la question de l’accessibilité aux prêts et aux assurances ainsi que celle des jeunes patients atteints de cancer. Il a insisté sur le fait que les patients devaient d’abord être regardés comme des citoyens actifs et valides.
The example of the French bio-molecular platforms

• Full country coverage
• 8 biomarkers related to 11 drugs
• 55,000 patients were tested in 2011 to allow a prescription (BCR-ABL, KRAS, EGFR, …)
• 76,300 patients were tested for drug under development (trials)
• A quality assurance program has been established by the French NCI
Trends since 2007

<table>
<thead>
<tr>
<th>Pathologie</th>
<th>Biomarqueurs</th>
<th>Nombre de patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2007</td>
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<tr>
<td>Leucémie myéloïde chronique/Leucémie aiguë lymphoïde</td>
<td>Détection BCR-ABL (hors caryotype standard)</td>
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<tr>
<td></td>
<td>Quantification BCR-ABL</td>
<td>6 700</td>
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<tr>
<td></td>
<td>Mutations ABL</td>
<td>nd</td>
</tr>
<tr>
<td>Cancer du sein</td>
<td>Amplification HER2</td>
<td>nd</td>
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<tr>
<td>Cancer de l'estomac</td>
<td>Amplification HER2</td>
<td>/</td>
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<tr>
<td>Cancer colorectal</td>
<td>Mutations KRAS</td>
<td>1 100</td>
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<tr>
<td>Cancer du poumon</td>
<td>Mutations EGFR</td>
<td>nd</td>
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<td></td>
<td>Translocation ALK**</td>
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<td>GIST</td>
<td>Mutations KIT</td>
<td>701</td>
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<td></td>
<td>Mutations PDGFRA</td>
<td>701</td>
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<tr>
<td>Mélanome</td>
<td>Mutation BRAF V600***</td>
<td>nd</td>
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<tr>
<td><strong>TOTAL DES TESTS PRÉDICTIFS POUR L’ACCÈS À UNE THÉRAPIE CIBLEE AVEC AMM</strong></td>
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<td>19 139</td>
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</tbody>
</table>
Innovation is also supported by new tests added every year

**What’s new in 2012?**

- NSCLC: *ROS1* translocation/crizotinib; MET translocation/vandetanib
- Squamous NSCLC: *DDRE2* mutations/dasatinib
- Melanoma: *NRAS* mutations/ MEK inhibitor
- Breast cancer and other solid malignancies: *FGFR1* amplification/FGFR inhibitors
- Papillary thyroid cancer: *BRAF* mutations/ vemurafenib
- RAI-refractory thyroid cancer: *BRAF* mutations/ BRAF or MEK inhibitors for re-acquisition of RAI uptake
Focus on lung cancer tests in 2011

This approach has an immediate impact on the quality of care and on patient survival
Conclusion

Lebanon needs to rely on two pillars

- The rich cancer care offering and services available in Beirut and around
- A new innovative national coordination to improve the current situation

In oncology, quality is directly related to

- Prevention
- Screening
- Early diagnostic
- Personalized protocols decided by teams not by individuals
- Access to the best onco-surgery and radiotherapy
- Access to innovative drugs
- Quality control and peer review discussions between healthcare professionals
Overall Survival: 
The best quality indicator in oncology
Thank you

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