Chilean Program of Gastric Cancer Initiatives: Campaign of Nueva Imperial

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Chairman of Chilean Association of Digestive Endoscopy
Vice Chairman of Chilean Society of Gastroenterology
Chairman of Stomach Committee of World Endoscopy Organization
Associated Professor
Pontificia Universidad Católica de Chile
Agenda

1. Background
2. What progress have we made in the last years?
   Chilean Program of Gastric Cancer Initiatives
3. Summary and Conclusions
GC is the 1st cause of death for cancer among men and 3th in women. Incidence 23,3/100,000 inhabitants, causing 3,300 deaths per year. Incidence is higher in south Chile 30-35/100,000.

*Per 100,000, age standardized to the World Standard Population. Source: GLOBOCAN 2012*
Background

Gastric Cancer in Chile:
5 year survival rate 12%
Background

GC Survival according extension (TNM)

Rate of Early Gastric C. detection in Chile < 10%
5 years Mortality Rate 85 - 90%
Waiting list for Endoscopy 2-4 years

Cenitagoya et al. 1998
Aims

• Never again Advanced Gastric Cancer

• Never again waiting list for endoscopy
How we could do it?
Guidelines and Consensus 2012 - 2014
How we could do it? Guidelines and Consensus 2012 - 2014

Management of *Helicobacter pylori* infection in Latin America: A Delphi technique-based consensus

What is the role of *H. pylori* eradication in primary and secondary prevention of GC? What is the appropriate age to eventually implement the prevention?

Primary prevention: The consensus states that the potential benefit of eradicating *H. pylori* for prevention of GC is highly suggested. However, insufficient evidence to justify large-scale implementation in the general population. Further studies performed on high-risk populations in Latin America confirm the expected benefit and to evaluate adverse effects. (Evidence level I, grade of recommendation C; Agreement 4.5 ± 0.5).
Best you can!!
New Endoscopy Protocol

Before Procedure

White Light E 77-84% GCD
Chromoendoscopy BLI (Eluxeo 7000)
(conventional-digital)
High Definition
Magnification

“quiet and clean stomach”

Simeticone
Pronase
Acetyl Cysteine
Scopolamine

Yao 2013;64:11-22,
Nam Cancer 2012)
Best you can!!
New Endoscopy Protocol

During the Procedure
Systematic Screening protocol for the Stomach (SSS)

1. Systematic-Progressive-Documented

2. Time: ”All you need”
   At least 8 minutes
   2 min Intubation mouth-duodenum
   4 min SSS
   2 min Esophagus 1 min more for every 1 Cm of Barrett

Lesions are visible but we do not see them, “we must retrain our eyes”

Best Endoscopic Partners: International Experts

Yao 2013;64:11-22
Conventional endoscopy is, in most hands, an inadequate tool for diagnosing atrophy and intestinal metaplasia and therefore it remains mandatory that a biopsy is carried out, allowing histomorphological assessment of the gastric mucosa according to the Sydney classification.¹⁹ ²⁰

Kyoto global consensus report on *H pylori* gastritis
The updated Sydney system is the most widely used classification of Gastritis, but ... It can not predict Gastric Cancer risk

Dixon et al., American J of Surg Pathol, 1996
Histological assessment systems like OLGA or OLGIM are useful to score the risk of Gastric Cancer development.

Rugge M, Gastroenterology 2005
**ACHED (Volunteers Endoscopists)**
- Campaigns Curanilahue
- Guidelines ACHED 2012-2014

**Ministry of Health**
- Guidelines MINSAL 2006-2014
- IX Region of Araucanía High Risk of GC

**Foundation Desafío – Foundation SC**
- Articulating the public and private services to help areas of vulnerability

**Medical Equipment ++ Zepeda**
- Permanent support to the Community

**City: Nueva Imperial**
- Waiting list Endoscopy > 2000 pctes
  - 2-4 years
Gastric Cancer: Campaign of Nueva Imperial 2016 (4 weeks)

H. of Nueva Imperial (IX región)

Vulnerability
High rate of Gastric Cancer
Waiting list of endoscopy > 4yrs.
Gastric Cancer: Campaign of Nueva Imperial 2017 (8 weeks)

HOSPITALS (NETWORK)

H. of Nueva Imperial (IX región)
H. of Villarrica (IX región)

Vulnerability
High rate of CG (25-35 /100,000)
Gastric Cancer: Campaign of Nueva Imperial 2018 (9 weeks)

HOSPITALS (NETWORK)

H. De Curanilahue (VIII región)
H. de Nueva Imperial (IX región)
H. de Villarrica (IX región)
H. De Victoria (IX región)

Vulnerability
High rate of Gastric Cancer waiting list of endoscopy > 4yrs
### Summary and Conclusions

<table>
<thead>
<tr>
<th>Numbers of Upper Gastro Intestinal Endoscopies (UGIE) performed in:</th>
<th>Numbers of UGIE performed in Three Years Campaign (2016-17-18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 (4 weeks)</td>
<td>750</td>
</tr>
<tr>
<td>2017 (8 weeks)</td>
<td>1017</td>
</tr>
<tr>
<td>2018 (9 weeks)</td>
<td>840 (On going, 6th week)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Numbers of Hospital involved in:</th>
<th>2607</th>
</tr>
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<tbody>
<tr>
<td>Two Years Campaign (2016-17)</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Volunteered Endoscopists:</th>
<th>42 (42/400 = 10,5% of the Endoscopist in Chile)</th>
</tr>
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<tbody>
<tr>
<td>2016</td>
<td>62 (62/400 = 15,5% of the Endoscopist in Chile)</td>
</tr>
<tr>
<td>2017</td>
<td>88 (88/400 = 22 % of the Endoscopist in Chile)</td>
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<tr>
<td>2018</td>
<td></td>
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<table>
<thead>
<tr>
<th>Estimated Number of Endoscopist in Chile</th>
<th></th>
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<tbody>
<tr>
<td>Number of Internationall Endoscopist:</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>4</td>
</tr>
<tr>
<td>2018</td>
<td>5</td>
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<table>
<thead>
<tr>
<th>Waiting List for UGIE Before Campaigns</th>
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<tbody>
<tr>
<td>Waiting List for UGIE After two Campaigns</td>
<td></td>
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<tr>
<td>2-4 years</td>
<td></td>
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<tr>
<td>&lt;3 months</td>
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<tr>
<th>Number of Gastric Cancer (GC) (2016-17)</th>
<th>6 (0,3 %)</th>
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</thead>
<tbody>
<tr>
<td>Number of Early Gastric Cancer (EGC) (2016-17)</td>
<td>4 (0,22 %)</td>
</tr>
<tr>
<td>Number of Advanced Gastric Cancer (AGC) (2016-17)</td>
<td>2 (0,11 %)</td>
</tr>
<tr>
<td>% of GC detected as EGC (2016-17)</td>
<td>66,6 %</td>
</tr>
<tr>
<td>Previously Reported % og GC detected as EGC in Chile</td>
<td>10 %</td>
</tr>
</tbody>
</table>

| Previously Reported % og GC detected as EGC in Chile          |                                                              |
Summary and Conclusions

- Clinical Improvements
  - 1767 endoscopies were performed
  - 4/6 early Gastric Cancer were detected (66%)
  - 10 - 15% of the patients have very high risk preneoplastic lesions, to concentrate resources in follow up.

- Structural Improvements of the Health System
  - Resolution of endoscopy waiting list.
    - It is an standardized model, it could be replicated in other áreas in our country.
    - A network of 4 hospitals has been developed, with a common endoscopy and biopsy protocol to detect early gastric cancer and preneoplastic lesions.
    - 5 other hospitals have applied to participate in the Project (2019-2020)
Summary and Conclusions

• Structural Improvements of the System
  – Development of Local Endoscopy Unit
    • Core: Endoscopists - Nurses - Family MD - Pathologists
    • Commitment of the hospital authorities to provide the necessary endoscopist hours and equipment to keep the endoscopy waiting list resolved.
  – Standarized and Protocolized endoscopy of high quality.

• Training by experts ("TTT"):
  – Five consulting foreign endoscopists (covered all weeks): feedback at endoscopy room
  – Daily discussions sessions of images of the day with an International Expert
  – Almost 90 endoscopist have taken part in the Campaigns (20% of all endoscopist in Chile)

• Research (Local Projects - Colaboration with other foreign institutions (NIH) )
Gastric Cancer: Campaign of Nueva Imperial 2019

HOSPITALS (NETWORK)

- H. De Curanilahue (VIII región)
- H. de Nueva Imperial (IX región)
- H. de Villarrica (IX región)
- H. De Victoria (IX región)

Vulnerability
High rate of Gastric Cancer
waiting list of endoscopy > 4yrs
Gratitude


**Internationals Endoscopic Experts:** Parra A *(UK)*, Ishida T *(Japan)*, Odagaki T *(Japan)*, Moriyama T *(Japan)*, Kanesaka *(Japan)*, Yao K *(Japan)*.

**Pathologists**
*Universidad de la Frontera:* Araya JC, Bellolio E, Villaseca MA.
*U de Chile:* Carrasco G.

*H. De Curanilahue:* Claudia Cabezas

*H. De Victoria:* Bolivar Lee,

**Colaborator Vanderbilt University (USA):** Piazuelo B

**Researchers**
*PUC, Chile:* Alarcón A, Contreras D, Maturana MJ, Rodríguez A, Corvalan A.

*NIH (USA):* Camargo C, Abnet C.

*U del Norte:* Guiiano Bernal

*U de La Frontera:* Monica Vazquez

**Foundation Soluciones Colaborativas:** Painemal A, Contreras J, Domeyko I, Calvo S.

**Engineer:** Zepeda A

**Analysis and evaluation of data:** Padilla O., Contreras D.
Gratitude

IF YOU WANT TO GO FAST, GO ALONE.

IF YOU WANT TO GO FAR, GO TOGETHER.