IMPACT of UNIVERSAL IMMUNIZATION AGAINST HEPATITIS A in CHILDREN HOSPITALS in ARGENTINA.

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FUNCEI - Buenos Aires – Argentina.
Hepatitis A in Argentina

Background

- Hepatitis A Virus (HAV) infection remains the most frequently reported vaccine-preventable disease worldwide. Fulminant hepatic failure (FHF) by HAV is the most severe complication.

- In Argentina, official reported data had revealed an increase of HAV incidence rate in 2003-2004. Thus HAV vaccination was included as universal immunization (UI) with one dose at 12 month of age since July 2005.

PROBABLE CASES: 1,712,292
CASES 5-14 YEARS: 60% (1,027,375)

Thousand

www.diripe.vigia.org.ar
Hepatitis A rate of incidence 2002-2003-2004

<table>
<thead>
<tr>
<th></th>
<th>2002 Casos</th>
<th>2002 Tasas x 100,000</th>
<th>2003 Casos</th>
<th>2003 Tasas x 100,000</th>
<th>2004 Casos</th>
<th>2004 Tasas x 100,000</th>
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</thead>
<tbody>
<tr>
<td>Total país</td>
<td>25558</td>
<td>70,5</td>
<td>50399</td>
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<tr>
<td>Centro</td>
<td>12127</td>
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<td>28243</td>
<td>118,5</td>
<td>40209</td>
<td>168,7</td>
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<tr>
<td>Noa</td>
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<tr>
<td>Cuyo</td>
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<td>237,6</td>
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<tr>
<td>Sur</td>
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<td>1363</td>
<td>66,9</td>
<td>3463</td>
<td>170,0</td>
</tr>
</tbody>
</table>
Study design

**Objectives:**
- This study was designed to evaluate the impact of UI on the incidence of HAV and its complications.

**Methods:**
- Hospital records of hepatitis cases clinically diagnosed or serologically confirmed as HAV were reviewed and collected retrospectively from ambulatory and hospitalized children from five hospitals in interior cities of the country. Data about FHF and liver transplant (LT) due to HAV was also collected.
Sentinel centers

- Hospital de niños Eva Perón. Santiago del Estero.
- Hospital Notti. Mendoza.
- Hospital de niños Jesús de Praga. Salta.
- Hospital interzonal de niños Eva Perón. Catamarca.
Methods

- **Study period:**
  - Before UI: January 2002-Dec 2005
  - After UI: January 2006-Dec 2007

- **Exclusion criteria:**
  - Patients < 3 months and > 18 years.
  - Previously hepatic illness.
Results: Before UI

- 4,397 Ambulatory cases
- 217 Hospitalized cases
- 14 FHF
Results

Diagnoses

Ambulatory: 4397 cases

- 549 HVA (13%)
- 3812 Clinical (87%)

Hospitalized: 217 cases

- 114 HVA (53%)
- 92 Clinical (42%)
- Others (5%)
  - 6 Autoimmune hepatitis
  - 1 Brucellosis hepatitis
  - 1 CMV hepatitis
  - 1 Adenovirus hepatitis
  - 1 Toxic hepatitis
Results
Fulminant hepatic failure

14 Cases

Evolution

- 7; 50%
- 5; 36%
- 2; 14%

Diagnose

- 13; 93%
- 1; 7%

Legend:
- Death
- Liver Transpl
- Recovery
- HVA
- Hv no A no B
Results: After UI

- 341 Ambulatory cases
- 26 Hospitalized cases
- No cases of FHF.
Total ambulatory cases

Ambulatory cases per year

AFTER UI

REDUCTION 80 %
Total cases

Hospitalized

Before UI  | After UI
---------|---------
Cases     | Cases   
Before UI | After UI

FHF

Before UI  | After UI
---------|---------
Cases     | Cases   
Before UI | After UI

Down 89%  
Down 100%
None of the cases before and after UI had been vaccinated.

Children of the second period were older than those in the first one ($p<0.01$)
Conclusion

- UI reduced 80% the cases of both ambulatory and hospitalized cases of HVA.

- The greater and most important reduction was seen on FHF (100% case reduction).
Muchas gracias
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