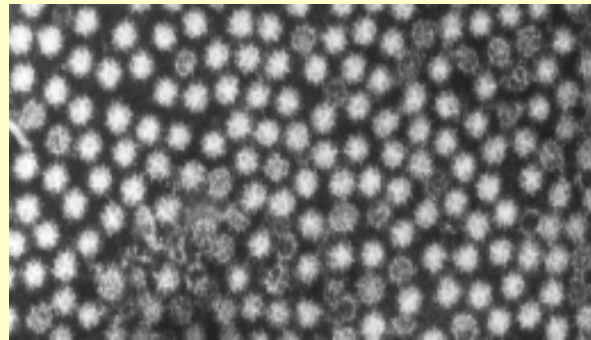


Incidence and Type Distribution of Astrovirus Among Spanish Children



**R. Dalton, A. Negredo, E. Roman, I.
Wilhelmi, and A. Sanchez-Fauquier**

Objectives

1. To identify the importance of Astrovirus as a cause of gastroenteritis among Spanish children.

2. To determine the Astrovirus prevalent genotypes.

Patients

Children under 4 years old who visited an emergency room with the diagnosis of Gastroenteritis.

Negative for Bacteria

Negative for Gastroenteritis Viral Agents

Rota A

ELISA

Rota C

RT-PCR

Adeno

ELISA

Calici

RT-PCR

**Test for the presence of
Astrovirus**

Laboratory Tests for Astrovirus


Instituto
de Salud
Carlos III

**ELISA
(Dako)**

Negative

Amplification of the RNA: RT-PCR

**Viral RNA extracted
by silica methods**

**Primer pair used:
Mon340/Mon348
(Belliot et al. 1997
Arch.Virol.)**

Genotyping of Astrovirus



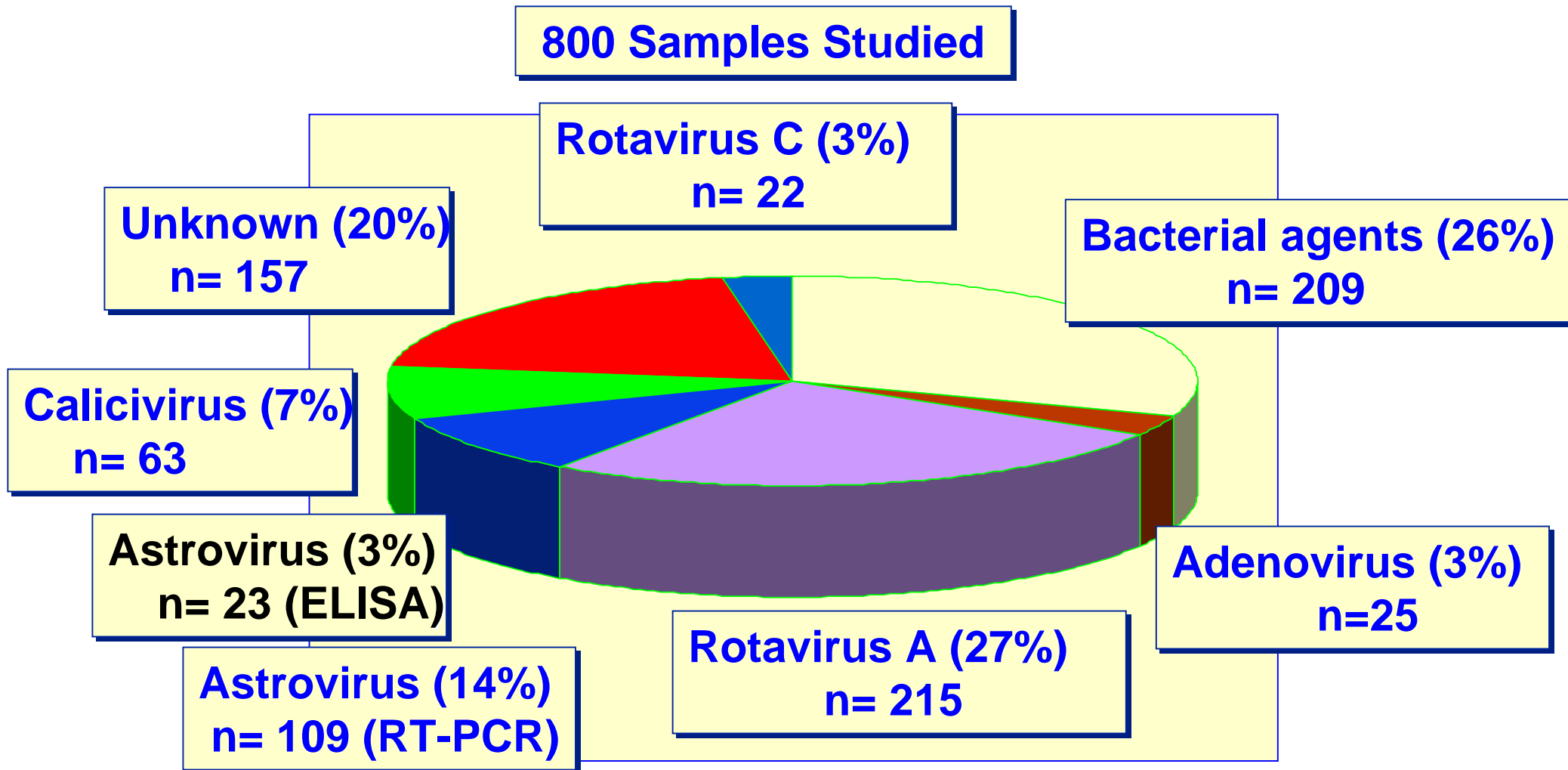
Phylogenetic Tree by Kitsch Method (PHYLIP Package)

Primer sets used
Mon244/Mon245-
Mon269/Mon270
(Noel et al.1995,J
Clin.Microbiol.)

Sequence analysis of 179 bp
fragment

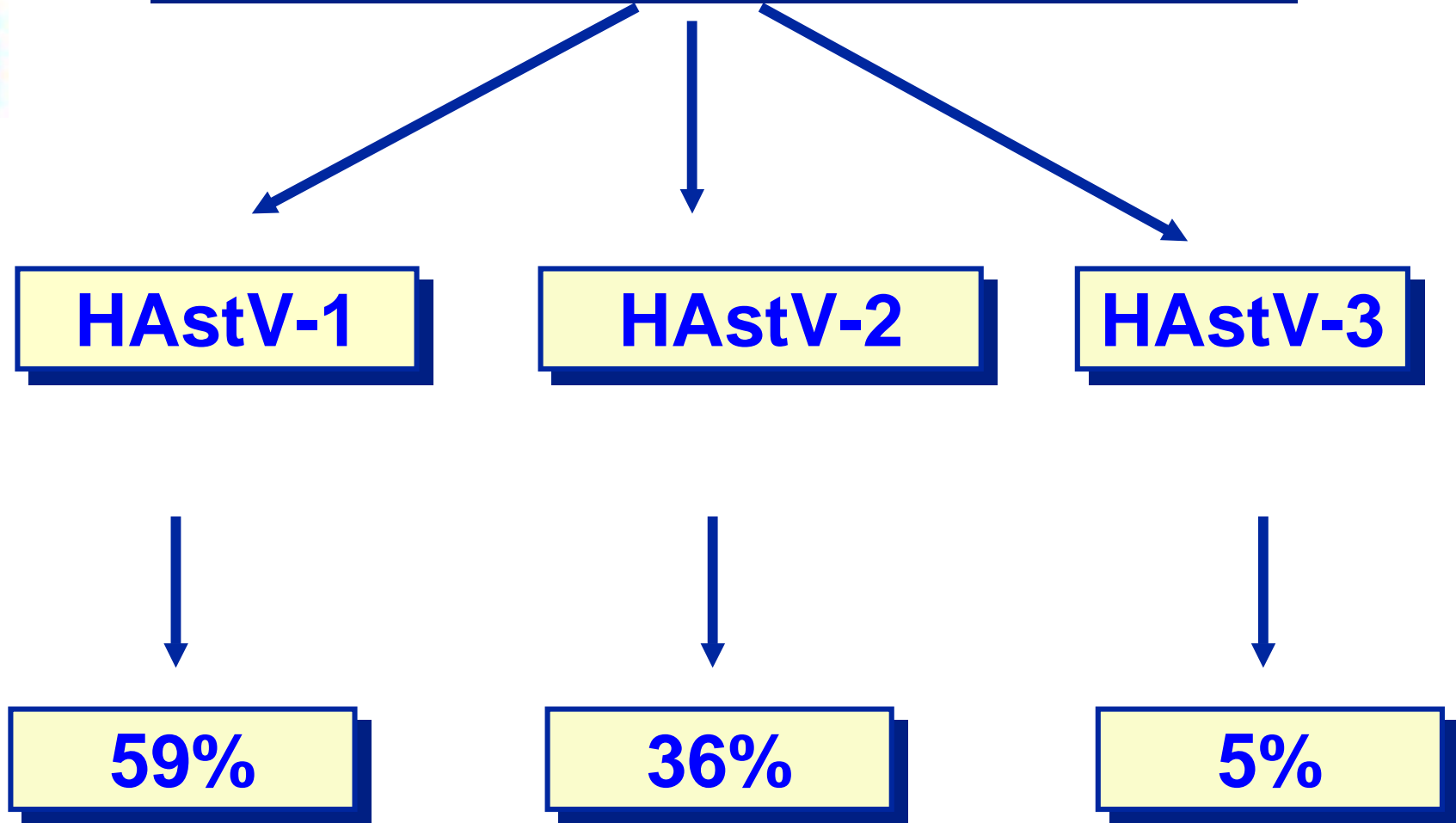
(CLUSTALX or MEGALIGN)

Distribution of Common Enteric Pathogens from 1996-97



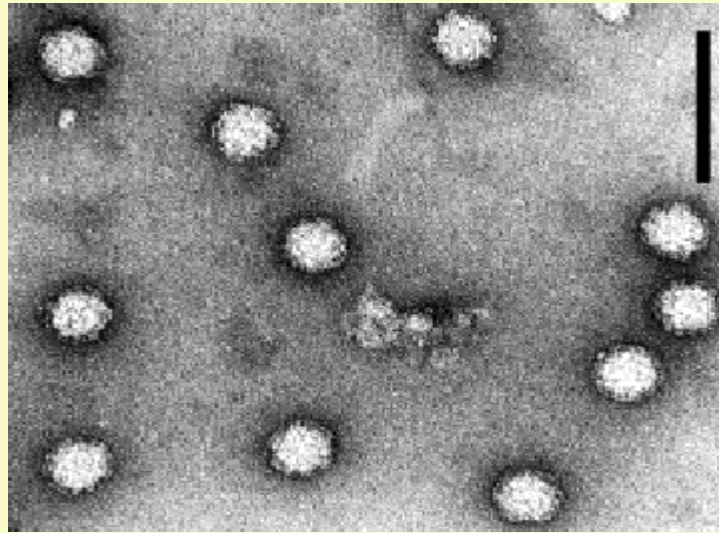
* 14% is an estimate based on subsample of 238 specimens.

Genotypes of Astrovirus



Conclusions

1. Astrovirus represents the second most common viral cause of acute gastroenteritis among Spanish children.



Conclusions

2-The Astrovirus prevalence could be underestimated if only ELISA are used for detection.

3- HAstV-1 was the most predominant type followed by HAstV-2 throughout the study period.

RECOMMENDATION

When testing for Astrovirus by ELISA, specimens that yield ambiguous or negative results could be retested by a more sensitive technique like RT-PCR

Acknowledgements

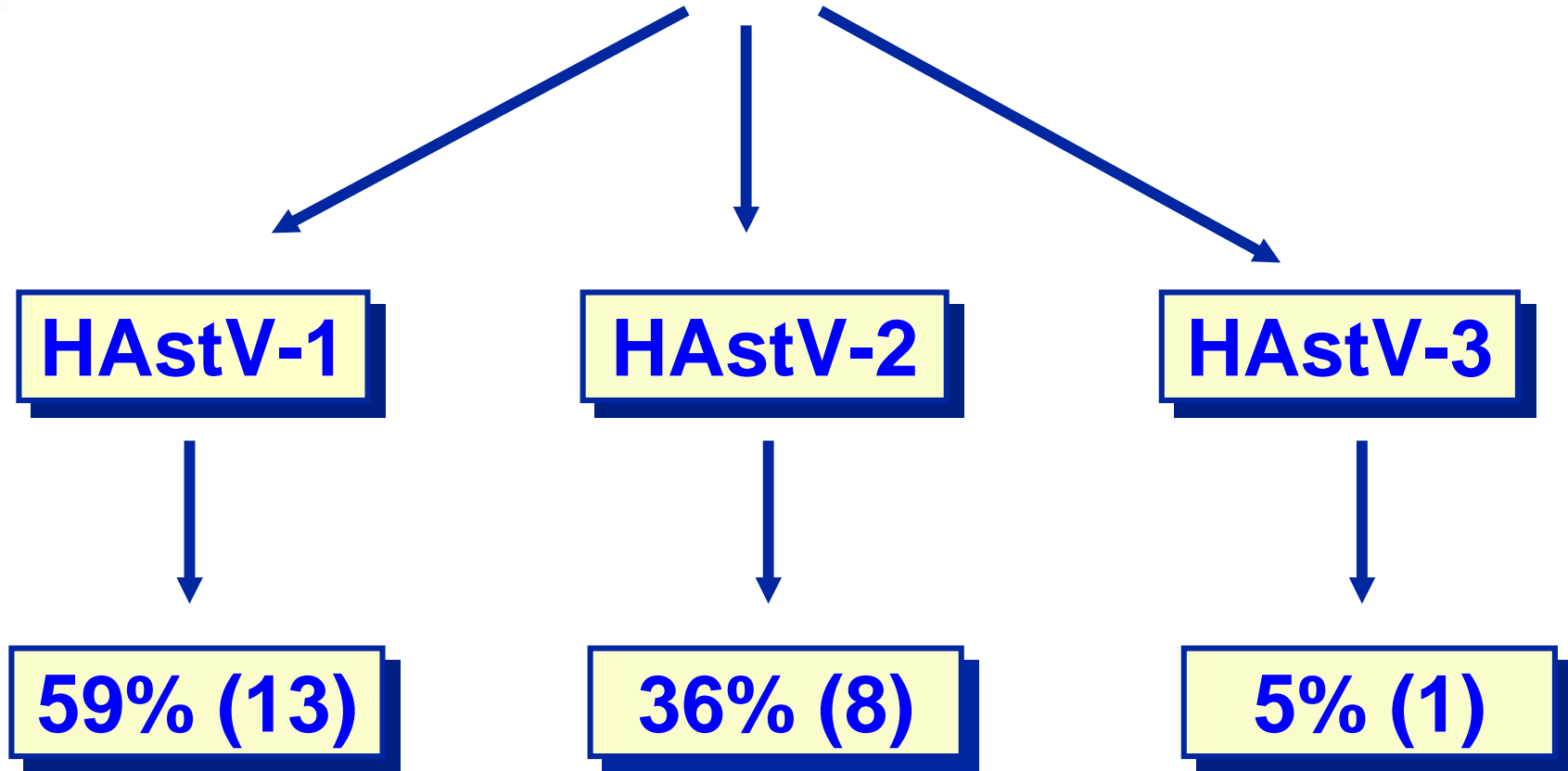
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22 Astrovirus samples genotypes



Rate of Hospitalization

Population covered by Hospital : 15.000
children under four years old
hospitalized children : 53



Hospitalization incidence might be 3.5/1.000
children
It represents 6.6 of the admissions for all
diagnosed children of this age group

n= 23
(ELISA)

Results

14 % represents a minimum incidence

238/238

RT-PCR

=109

14%