

# Upper Gastrointestinal Complaints and use of Acid Reducing Agents are frequent in patients treated with Antiretrovirals

E Toma MD.<sup>1</sup>, N Ackad MD.<sup>2</sup>, S Auger B.Sc.<sup>3</sup>, J Sampalis Ph.D.<sup>3,4</sup>

<sup>1</sup>Université de Montréal CHUM-Hotel Dieu, Montréal, Canada, <sup>2</sup>Abbott Laboratories Ltd, Saint-Laurent, Canada, <sup>3</sup>JSS Medical Research Inc, Montréal, Canada, <sup>4</sup>McGill University, Montréal, Canada.

## BACKGROUND

- ❖ The use of HAART in the management of HIV infection has produced significant benefits with respect to virological control and improved immunological function.
- ❖ However, the use of ARV medications has been associated with an increased risk for AEs, especially upper gastrointestinal symptoms.
- ❖ Control of or minimization of GI symptoms may lead to increased adherence and improved effectiveness of ARV treatment.
- ❖ The variation in GI symptoms associated with different ARV regimens has not been extensively documented in a real-life observational setting.
- ❖ The purpose of the current study was to assess this knowledge gap using a cross sectional survey design.

## OBJECTIVES

- ❖ To describe the prevalence of upper GI symptoms in HIV<sup>+</sup> patients treated with ARV.
- ❖ To describe the difference in the prevalence of upper GI symptoms between HIV<sup>+</sup> patients treated with different PIs.

## METHODS

- ❖ Cross sectional survey of patients treated with an anti-retroviral agent (ARVs)
- ❖ All patients completed a self administered survey.
- ❖ Prevalence of upper GI complaints (UGC) was ascertained as one of the following:
  - ◊ The occurrence of the following Upper GI Symptoms (UGS):
    - ⇒ Heartburn
    - ⇒ Gastric reflux
    - ⇒ Ulcer disease
  - ◊ Use of the following Acid Reducing Agents (ARA):
    - ⇒ H2 blockers
    - ⇒ PPIs
    - ⇒ Antacids

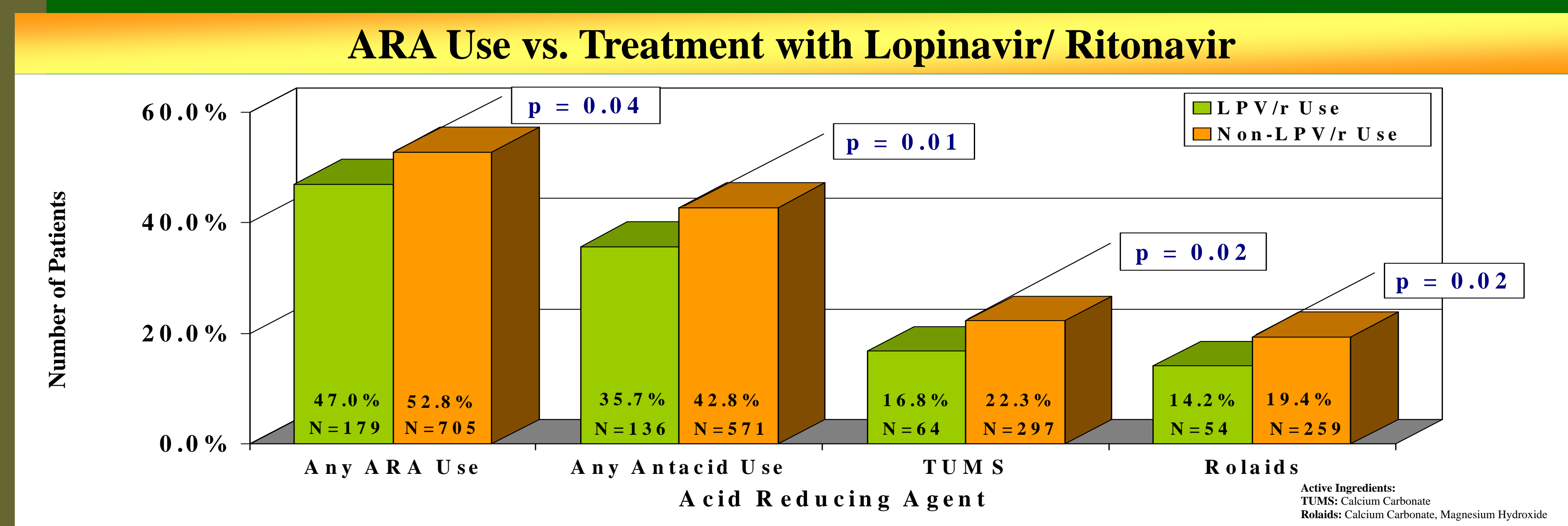
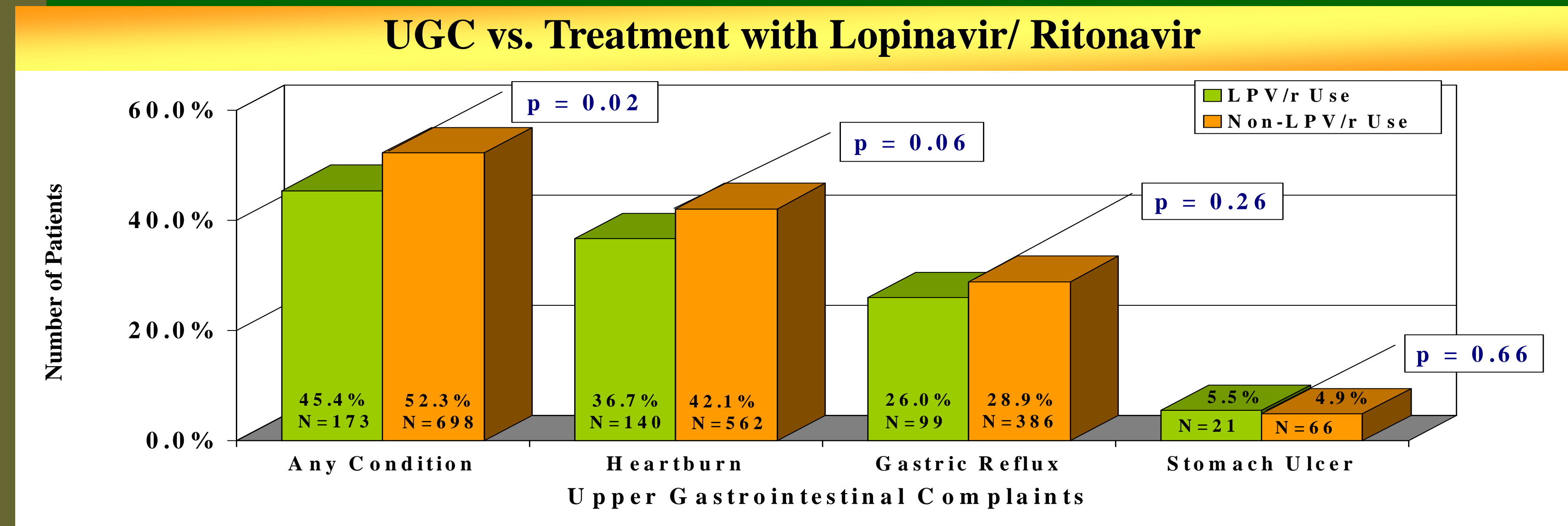
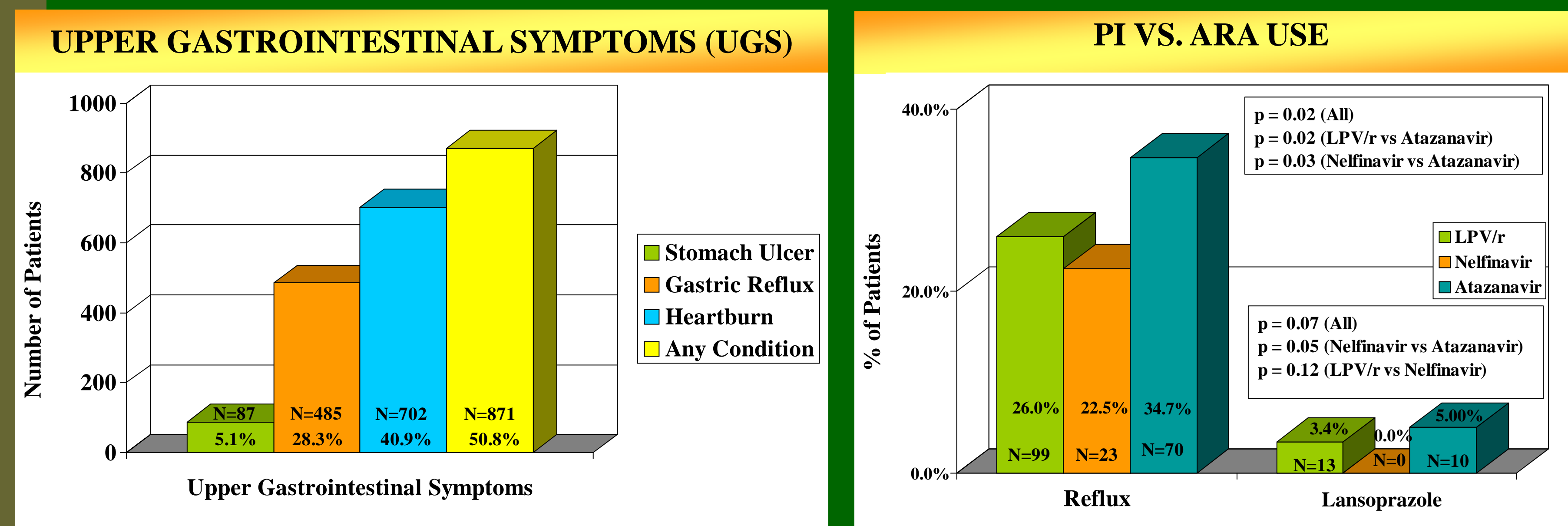
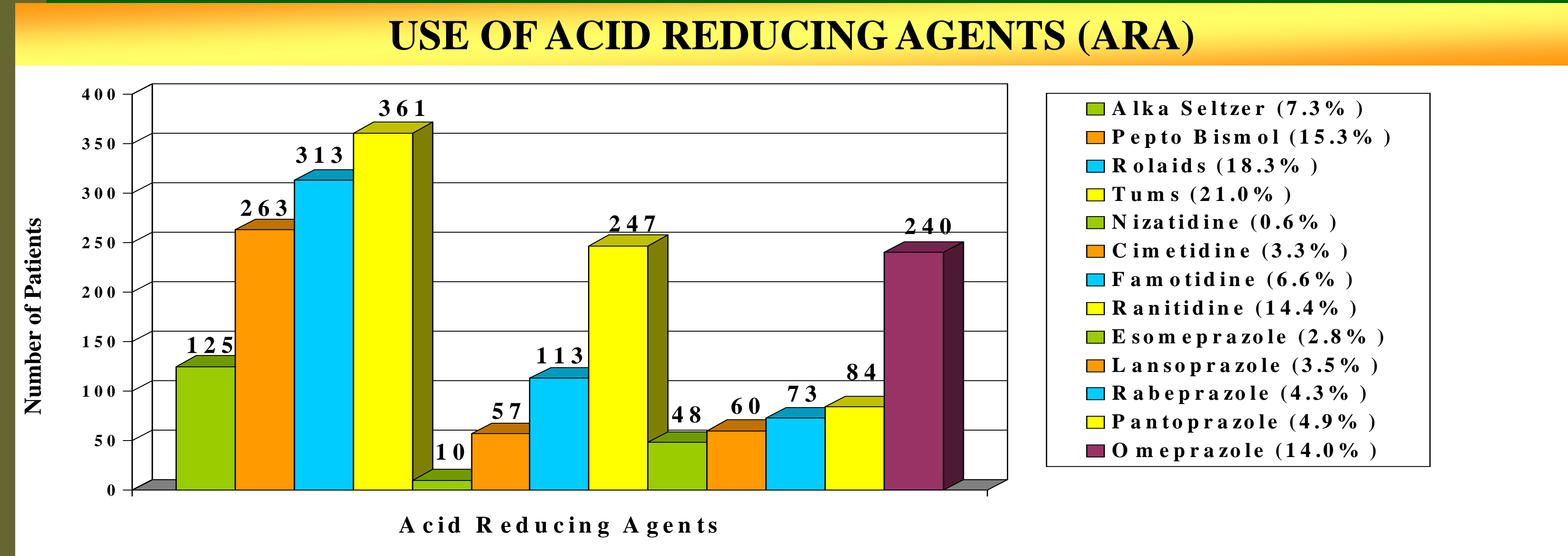
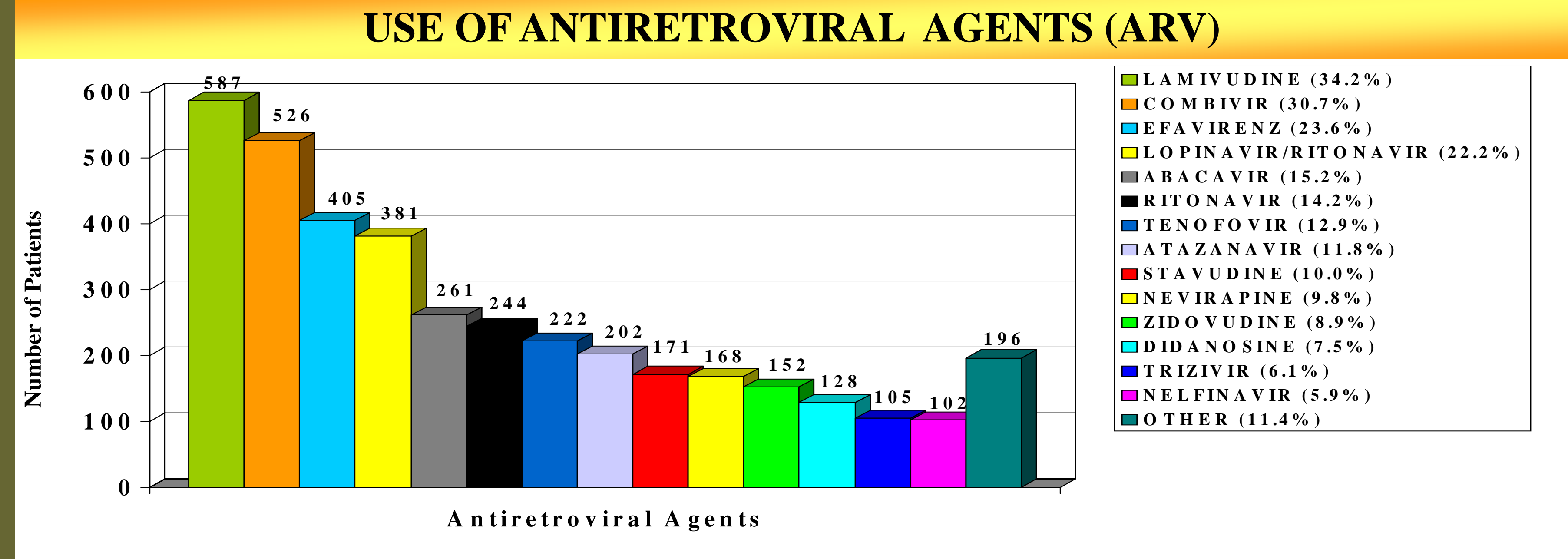
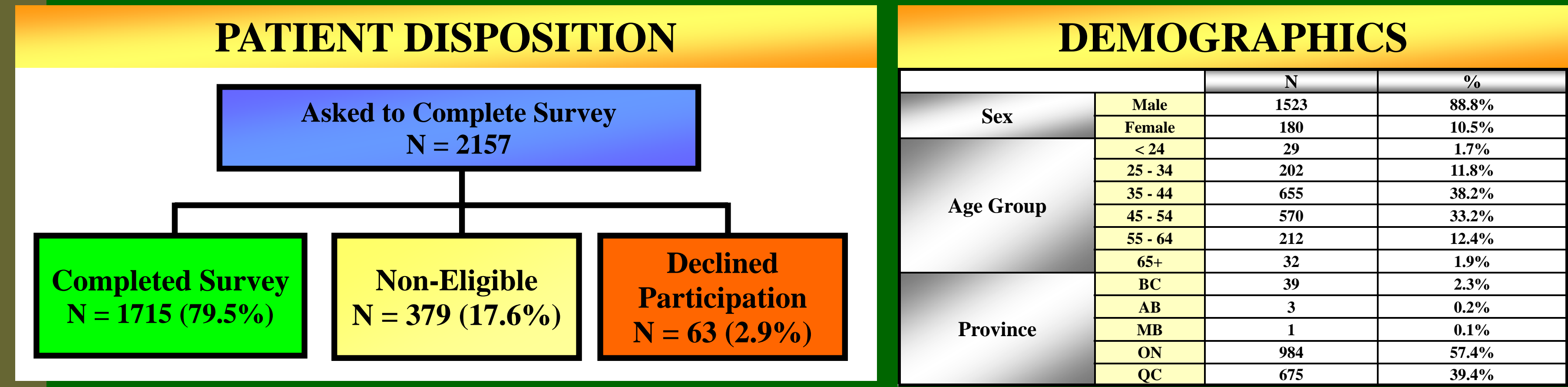
## RESULTS

- ❖ 2157 patients were invited to participate:
  - ◊ 1715 (79.5%) were eligible and participated
  - ◊ 379 (17.6%) were non-eligible
  - ◊ 63 (2.9%) declined participation
- ❖ The analysis was based on eligible participants
- ❖ Mean (SD) age was 44.3 (9.4) years and 89% were male
- ❖ Respondent residence:
  - ⇒ Ontario (57.4%)
  - ⇒ Quebec (39.4%)
- ❖ UGC were reported by 871 (50.8%) patients:
  - ◊ Heartburn (40.9%)
  - ◊ Gastric reflux (28.3%)
  - ◊ Stomach ulcers (5.1%)
- ❖ 871 reported at least one UGC, of which 719 (82.5%) reported using at least one ARA
- ❖ 844 respondents had no UGC, of which only 165 (19.5%) reported using an ARA
- ❖ Patients treated with lopinavir/ritonavir (LPV/r) (N=381) vs other ARVs had statistically significant lower rates of:
  - ◊ UGC (45.4% vs. 52.3%; p = 0.02)
  - ◊ ARA use (47.0% vs. 52.8%; p = 0.04)
  - ◊ Antacid use (35.7% vs. 42.8%; p = 0.01), including
    - ◊ TUMS (16.7% vs. 22.3%; p = 0.02)
    - ◊ Roloids (14.2% vs. 19.4%; p = 0.02)
- ❖ PPI use was not statistically different (9.4% vs. 10.1%; p = 0.70).

## CONCLUSIONS

- ❖ Upper gastrointestinal symptoms are highly prevalent among HIV<sup>+</sup> patients treated with ARV.
- ❖ Those on LPV/r have a lower prevalence of UGC.
- ❖ Patients with LPV/r-containing regimens use significantly less ARA, including less use of any antacid, Tums (calcium carbonate) or Roloids (calcium carbonate, magnesium hydroxide).
- ❖ Inappropriate use of antacids in regimens containing Atazanavir might decrease effectiveness of these regimens.
- ❖ In patients with UGC needing ARA, LPV/r-containing regimens seem more appropriate than other PI's.

## RESULTS



**ACKNOWLEDGEMENTS** We are grateful to all the participants who took the time to complete the survey as well to all the physicians who provided the survey to their patients to complete.