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# Hypertrophic Pyloric Stenosis Protocol: A Single Center Study

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# Disclosures:


- Nelimar Cruz-Centeno, MD
- Nothing to Disclose

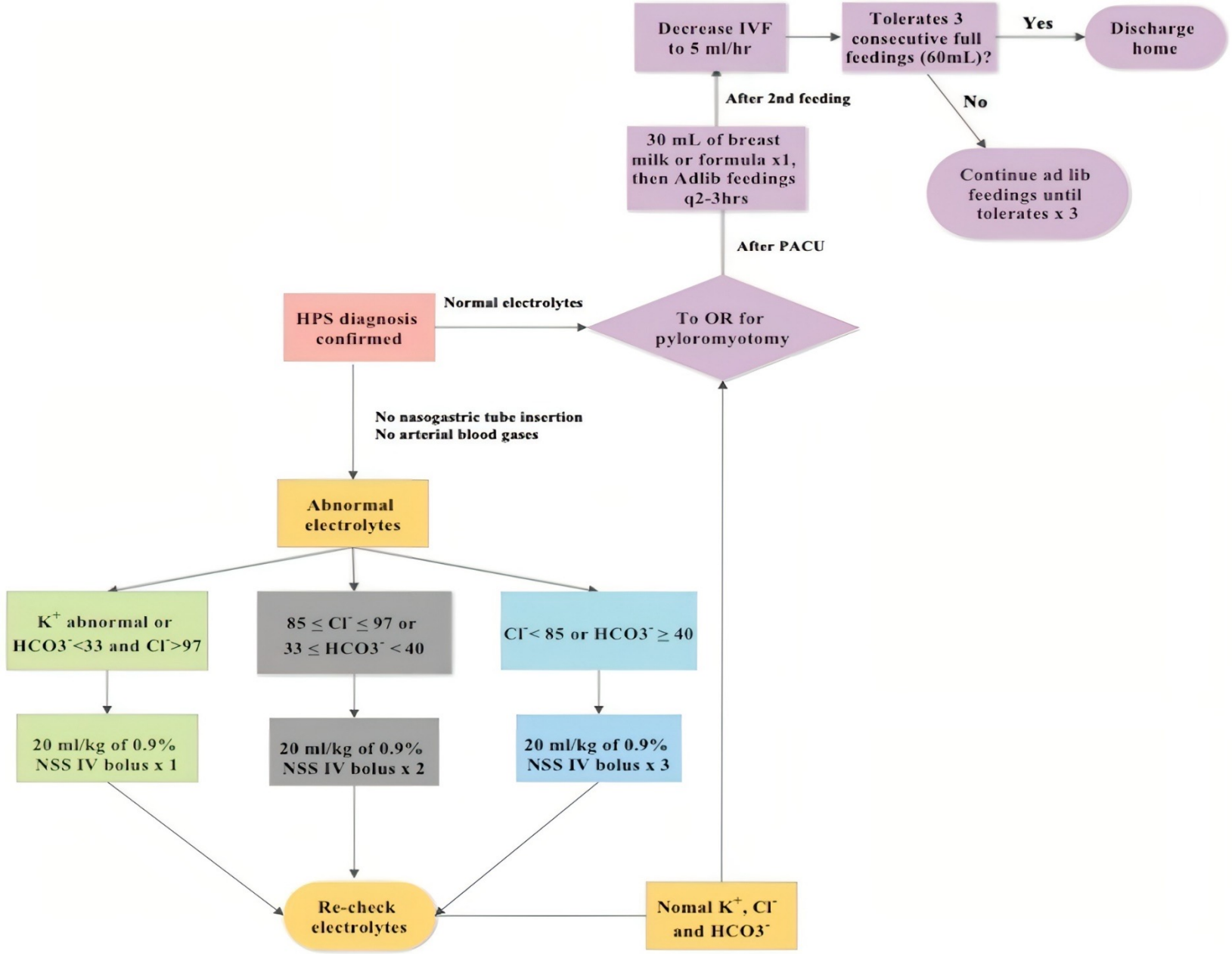
# Introduction:

- Initial management of hypertrophic pyloric stenosis (HPS) is correction of electrolyte disturbances with fluid resuscitation
- Hypochloremic hypokalemic metabolic alkalosis presents significant anesthetic risks of hypoventilation, apnea, and aspiration
- Post-operative management focuses on early feedings
  - Ad lib feeds are associated with faster discharge and time to reach goal feedings
- Our aim was to describe our HPS protocol and outcomes

# Methods:

- Retrospective review of patients diagnosed with HPS from 2016-2020
- Single tertiary care pediatric center
- **Exclusion criteria:**
  - Critically ill secondary to another diagnosis
  - Diagnosed with HPS while admitted to the hospital
  - Missing information from medical record
- **Primary outcome:** postoperative hospital length of stay (LOS)
- **Secondary outcomes**:
  - Total number of preoperative labs drawn
  - Time from surgery to initiation of feeds
  - Time from surgery to full feeds
  - Re-admission and re-operation rate

# HPS Protocol:





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Fraser JA, Osuchukwu O, Briggs KB, et al. Evaluation of a fluid resuscitation protocol for patients with hypertrophic pyloric stenosis. J Pediatr Surg. 2022;57(10):386-389. doi:10.1016/j.jpedsurg.2021.10.052


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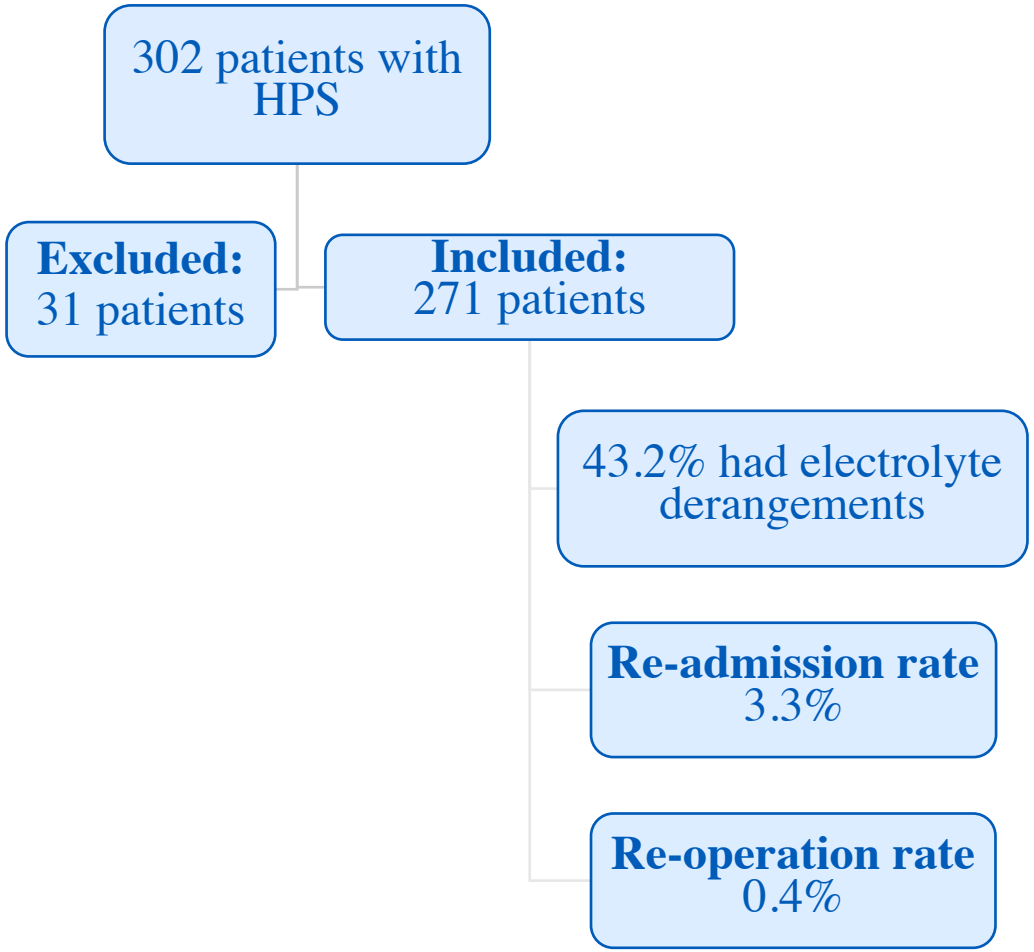
# Results:




| Baseline Characteristics | |
|---|---|
| **Gender** | |
| Male | 225 (83.0%) |
| Female | 46 (17.0%) |
| **Race** | |
| Caucasian | 210 (77.5%) |
| Other | 61 (22.5%) |
| **Median age (weeks)** | 5 (IQR 3.9,6.5) |
| **Median weight (kg)** | 3.9 (IQR 3.4,4.4) |

| Outcome | Median (IQR) |
|---|---|
| **Lab draws** | 2 (1,2) |
| **Time from arrival to surgery (hours)** | 19.2 (15.1,24.9) |
| **Time from surgery to first feed (hours)** | 1.9 (1.2,2.7) |
| **Time from surgery to full feeds (hours)** | 11.4 (6.2,19.1) |
| **Post operative LOS (hours)** | 22.2 (9.6,30.6) |

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# Conclusions:

- This protocol allows infants with HPS to be managed efficiently
  - Few laboratories draws
  - No uncomfortable interventions
- Feeds were initiated expeditiously in the postoperative period ad libitum
- Most patients were discharged on postoperative day one
- Re-admission rate was low