



## **Introduction:**

Welcome to the clinical case-series, “Reasoning without Resources,” by Prof. Gerald Paccione of the Albert Einstein College of Medicine. These teaching cases are based on Prof. Paccione’s decades of teaching experience on the medical wards of Kisoro District Hospital in Uganda. They are designed for those practicing in low resource settings, Medicine and Family Medicine residents, and senior medical students interested in clinical global health. Each case is presented in two parts. First comes a case vignette (presenting symptoms, history, basic lab and physical exam findings) along with 4-10 discussion questions that direct clinical reasoning and/or highlight diagnostic issues. A month later, CUGH will post detailed instructors notes for the case along with a new case vignette. For a more detailed overview to this case-series and the teaching philosophy behind it, see [Introduction to “Reasoning without Resources.”](#) Comments or question may be sent to Prof. Paccione at: [gpaccion@montefiore.org](mailto:gpaccion@montefiore.org)

## **About the Author:**

I’m a Professor of Clinical Medicine at the Albert Einstein College of Medicine in the Bronx, New York, where my career has centered on medical education for the past 40 years – as a past residency Program Director in Primary Care and Social Internal Medicine at Montefiore Hospital, and global health advisor and program leader at the school. I’ve served on the Boards of Directors of Doctors for Global Health, Doctors of the World USA, and the Global Health Education Consortium. I spend about 3-4 months a year in Uganda working on the Medicine wards of Kisoro District Hospital which, like most hospitals in the world that serve most of the world's population, has (almost) no resources. "At the bedside", I teach Internal Medicine residents and medical students how to assimilate the elements of history, physical exam and epidemiologic probability into a diagnostic impression that, even without definitive testing, can lead to appropriate therapeutic strategies in the field.

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## Case 57: Vomiting Forever

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A 70 year old man is carried to a bed on the ward unable to walk for 2 days after some diarrhea and an increase in his usual vomiting over the past week.

He has had a long history of abdominal pain since the age of about 20 years old, often waking him from sleep at about 3 AM especially when he was younger, and relieved by food or drink. The pain has been a continual problem throughout his life, with some months better than others.

He has been hospitalized at least 10 times that he can recall for pain and more recently for vomiting which has also waxed and waned in severity (but never disappeared) over the years. The vomiting became a very significant problem 18 years ago and has been bad ever since. He usually vomits about 4-8 hours after eating, three or 4 times a week and often recurrently through the night, and it relieves his abdominal discomfort. The vomitus is most often clear-yellow with undigested food, without blood or mucous. Eighteen years ago, because of inability to keep food down, he lost a tremendous amount of weight, became very weak and had to stop working in the fields. He hasn't worked since, has been "very thin" and walks slowly with a cane. He doesn't drink or take drugs.

At another hospital, he was diagnosed with a "stomach allergy", and another time with "ulcers" for which he's received treatment (?drugs) in the hospital. He usually feels somewhat better after treatment (but never normal) and goes home - until the next *severe* exacerbation in 2-6 months. This has been a particularly bad year with severe bouts of vomiting coming on more frequently and lasting longer. He has been hospitalized 3 times in the past 6 months for periods of days. Surgery has never been recommended to him (that he recalls).

About a week ago, he developed diarrhea, 3-4 times a day - watery, without blood, mucous, or fever. At the same time his vomiting became worse, and he couldn't keep anything down. Two days ago, he was too weak to walk. He can't remember urinating in the past 2 days.

He has had no fevers, cough, history of diabetes, problems with urinating or constipation, dizziness upon standing (except when "very sick"), or other symptoms. He was HIV-tested a year ago, negative. He is fully cared for by his wife and 3 older children who "dig" in the fields.

**Physical Exam:** Extremely emaciated/cachectic man, "skin-and-bones", unable to stand

BP: 75/60 lying, undetectable sitting; HR 115 lying, 135 sitting; RR 12; T: 96.2

HEENT: prominent bones without soft tissue; eyes: sunken, conjunctiva/sclera, no icterus or pallor

Mouth: no thrush; poor dentition

Neck: no neck veins detectable lying flat, detectable with legs passively elevated; no lymphadenopathy; no thyroid palpable

Lungs: clear

Heart: tachycardic, normal S1, S2; Gr1/6 systolic murmur at base without radiation

Abdomen: no hepato-splenomegaly, masses, tenderness;

Rectal: scant stool, liquid, guaiac negative; prostate not boggy/tender, mildly enlarged, normal contour;

Neuro: mental status intact; Cranial nerves, sensation, cerebellar testing intact

diffuse muscle weakness, 4/5 throughout; no twitching seen.

absent ankle jerks; unable to walk;

1. What is the *frame* of this case from the history and physical exam (i.e. the key clinical features the final diagnosis must be consistent with)?
  
2. What is the *clinical significance* of each of the features selected for “frame”?
  
3.
  - a) What are the likely *treatable* reasons for this patient’s inability to stand/walk?
  - b) What *immediate* therapy is indicated on admission?
  - c) What *additional exam maneuvers* and tests (available in a district hospital) are appropriate?
  
4. What is the *differential diagnosis of chronic vomiting* in this patient, and what are the *pros and/or cons* of each possibility?
  
5. What is the *most likely diagnosis* and why?  
What *treatment* is necessary?
  
6. What is the *epidemiology* of the underlying disease in Africa, and the implications of this patient’s presentation on the social dimensions of health care in Africa?