



## **Introduction:**

Welcome to CUGH's bi-weekly 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 6-10 discussion questions that direct clinical reasoning and/or highlight diagnostic issues. Two weeks 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)

**Note:** If you would like to be notified when a new case is posted (along with instructor notes for the previous one), send your e-mail to Katherine Unger at [kunger@CUGH.org](mailto:kunger@CUGH.org).

## **About the Author:**

Dr. Gerald Paccione is a Professor of Clinical Medicine at the Albert Einstein College of Medicine in the Bronx, New York. His career has centered on medical education for the past 35 years – as a residency Program Director in Primary Care and Social Internal Medicine at Montefiore Hospital, and director of the Global Health Education Alliance at the school. He has served on the Boards of Directors of Doctors for Global Health, Doctors of the World USA, and the Global Health Education Consortium. Dr. Paccione spends about 3 months a year in Uganda working on the Medicine wards of Kisoro District Hospital where he draws examples for the case studies.

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## **CASE 45 – Of Course... But Really...**

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**This exercise comprises 2 cases which share a common theme in clinical reasoning. *To get the most out of the exercise answer Questions 1-7, without looking ahead.***

A. An 80 year old man is brought to the hospital for care of an extensive burn on his lower leg. His family says he was in his usual state of health, moving slowly around the house compound due to knee arthritis and “old age” with some degree of forgetfulness over the years.

He awoke in the morning with a large burn on his anterior lower leg over his distal shin. They said he must have fallen into the fire the night before. The patient concurred – he got the burn because he fell into the fire the prior night, but he himself didn’t remember that. (His family looked around quietly shaking their heads and rolling their eyes, and said he was forgetting things.) He had not lost weight nor had fevers, and wasn’t complaining of pain.

Physical exam demonstrated an afebrile patient in no distress; an ulcer bed of red-yellow oozing irregular granulation tissue covered about 15 square inches over his lower left shin and extended to the dorsum of his foot, exposing the lateral extensor tendon; the ulcer was surrounded by somewhat indurated soft tissue, and had raised clean edges with areas of overlying devitalized skin.

He was diagnosed with a Third Degree burn by the clinical officer and by the resident, and started on diclofenac, antibiotics and xeroform burn dressings (brought from the U.S.).

- 1. What is the “frame” of this case (i.e. the key clinical features the final diagnosis must be consistent with)?**
  
  
  
  
  
  
  
  
  
  
- 2. What additional information from history and/or exam would be relevant in this case?**
  
  
  
  
  
  
  
  
  
  
- 3. What is the implicit purpose of acquiring the additional information requested and why is it important?**

B. A young man was brought in comatose with a large laceration on his scalp, accompanied by a group of friends and his cousin. He is put in a side room temporarily and the medical staff summoned. When you see the patient about 5 minutes after arrival, he's far from comatose – rather agitated, lashing out, violent - taking 5 of his friends to restrain him.

While grappling to hold him down, his friends provide the following history: he owns a banana-beer brewery, was drunk and carrying money, someone tried to rob him by hitting him on the head with a rock, he then became crazy and violent and was taken to the police station where he was restrained. He continued to act aggressively drunk, and, having been clobbered on the head in the street, lapsed into unresponsiveness. The police called a taxi, and he was taken to the hospital.

In the hospital, he was initially unresponsive, but then suddenly awoke and became violent again.

Exam was notable for a muscular 24 year old fighting and struggling against his friends, each clamped down on a limb while another tried to hold his head still. Yelling, spitting, straining. Blood oozing from a 2 inch deep laceration on the back of his head. Pupils equal and reactive to light; (gross) neurologic exam revealed a very strong man without focal signs.

Diagnosis by clinical officer and resident: severe agitation due to drunkenness and head trauma; sedation was ordered.

**4. What “frame” (i.e. key clinical findings the final diagnosis must be consistent with) was the resident and clinical officer working from when they made their diagnosis?**

**5. “What’s wrong with this picture?”**

**6. What are the next most important steps in the diagnostic process?**

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## 7. What is *common* to the above patient vignettes?

### Revisiting Case A: Answers to the additional questions:

- There were no witnesses to the fall into the kitchen fire and family members didn't know how he got out. He didn't call anyone, just went to bed.
- Nothing else was burned, clothes were okay.
- The patient's mental status seemed reasonable, though he was illiterate. He was alert and oriented to person, place and month/year, knew the names of the president of Uganda, the Chief of his village, his family. He could relate aspects of his life, like occupation, places lived, military service, etc., but not their dates.
- There were no other stages of burn on his leg.
- The wound had normal sensation, but was not tender.
- The patient said it was his 13 year-old nephew who first said it was "a burn" - not because he saw the man get burned, but because when he saw it for the first time in the morning, it looked like "a burn". His family agreed. He "must have" fallen into the fire, and they told the doctor so.
- In the weeks leading up to the burn, the patient noticed the skin over his lower leg was swollen, and had become puffy.

## 8. With the additional information above, how would you re-formulate the *frame* of Case A?

## 9. What's your diagnosis for Case A?

### Revisiting Case B: Answers to the additional questions ... and more:

- *no one* who brought the patient to the hospital had witnessed anything first hand – they had heard the "drunk bashed with a rock" story from the taxi driver who brought them all to the hospital with the patient. The taxi driver hadn't been with the patient either, but figured that that must've been what happened with this kind of thing i.e. rich guys who own breweries... or else he had heard it from the police. No one really knew if the patient had indeed been robbed at all... but one thing was certain: he had been acting strangely in the street and somehow wound up in the police station.
- His cousin, helping to hold him down, said, yes he drinks, but he's *never* seen him like this.
- Once sedated, his temperature was taken: 100.8 axillary.

## 10. With the additional information above, how would you re-formulate the "frame" in Case B?

## 11. What's the probable diagnosis in Case B, and what test would confirm it in the Kisoro setting?

**12. Both What “universal truth” about human behavior was overlooked by the clinicians caring for both of these patients, leading to the initial diagnostic error?  
How can these common errors in clinical practice be avoided?**