

# TENWEK HOSPITAL BOMET, KENYA

Joel Baumgartner  
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# Tenwek



# Tenwek Hospital Details

- Built in 1959
- Provides primary care to 400,000, referral center
- 308 beds, 6 ORs, 7 bed ICU, NICU
- 11,000 inpatients, 5000 surgeries, 1700 endoscopies annually





# Tenwek Hospital Details

- Lab, blood bank, 2 XR machines, 2 US; no CT/MRI, no path
  - 12 CTs in Kenya vs. 6000 in US
- Training: surgery residency (COSECSA), general medical internship, nursing school, chaplaincy school
- “Mission” of hospital



# Tenwek Experience

- ◉ Joined Kenyan surgery residents
- ◉ Chief resident role/call
- ◉ Clinic 2X/wk
- ◉ OR
  - 50 cases in 4 weeks
- ◉ Education
  - Participated/Led teaching conferences, established TPN protocol



# Tenwek Cases

## ⊙ Trauma

- “Golden Hour” is transport
- Volume increased w/ paved road in region
  - 5X increased volume in past 30yrs in Kenya
- Assaults over disputes regarding land, cows, women
- Patients kept hostage until bill paid



# Tenwek Cases

## ◎ CA

- Esophageal SCC endemic in Western Kenya
  - Most common malignancy at Tenwek (35%), 11% in patients < 30y/o vs. 1% in other endemic areas of world (N Iran, Kazakhstan, S Africa, N China)
  - 90% present inoperable, no local XRT/chemo available, offered palliative stents (\$13 charge without sedation, \$26 with)



# Tenwek Cases

## ◎ CA

- Esophageal SCC continued
  - Recent publication on 1000 self-expanding metal stents in 9yrs without fluoroscopy: Improved dysphagia scores, 3% perforation rate, median survival 250d for those with f/u
  - Case control studies: not HPV-, ETOH-related; hot tea, polycyclic aromatic hydrocarbons, familial linkage, viral discovery projects ongoing
- Other CA: gastric, breast, hepatocellular

White RE. Lancet Oncol 2009;10:240-246

### Panel: Indications and contraindications for SEMS placement at Tenwek Hospital

#### Indications for SEMS as opposed to surgical resection

- Distant metastases
- Tracheo-oesophageal fistula
- Phrenic or recurrent laryngeal nerve palsy

#### Relative indications for SEMS as opposed to surgical resection

- Age >80 years
- Extreme cachexia or malnutrition
- Poor exercise tolerance
- Marked medical comorbidities
- HIV positivity

#### Absolute contraindications for SEMS

- Tumour involving the upper oesophageal sphincter

#### Relative contraindications for SEMS

- Extensive tumour involvement of the gastric cardia



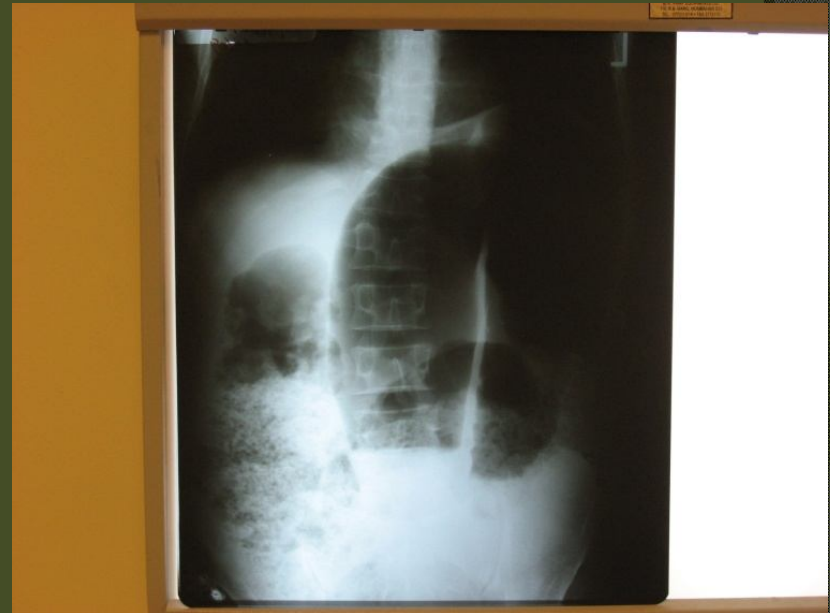
# Tenweek Cases

## ⊙ ID

- Typhoid fever
- TB
- PUD

## ⊙ Bowel obstructions

- Volvulus
- Hernias





# Tenwek Cases

- Pediatric Surgery
  - Congenital anomalies
  - Pediatric tumors
- Endocrine
  - Goiters
- Amputations
  - Mostly infectious, not ischemic etiology
  - Profound implications



# Tropical Surgery Pearls

- ◎ Common diseases are common but present uncommonly
- ◎ “We have no money; therefore, we must think” Geelhoed
- ◎ “The single requirement for working in the developing world is a nearly infinite threshold for frustration” Geelhoed



