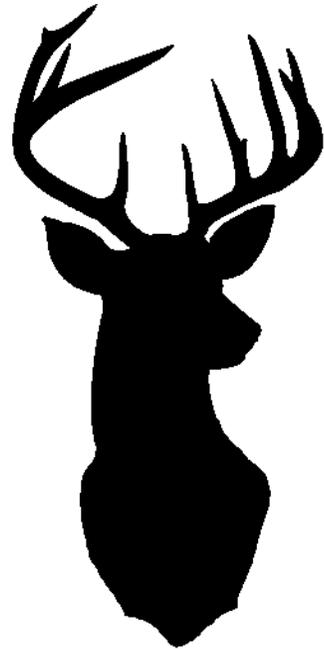
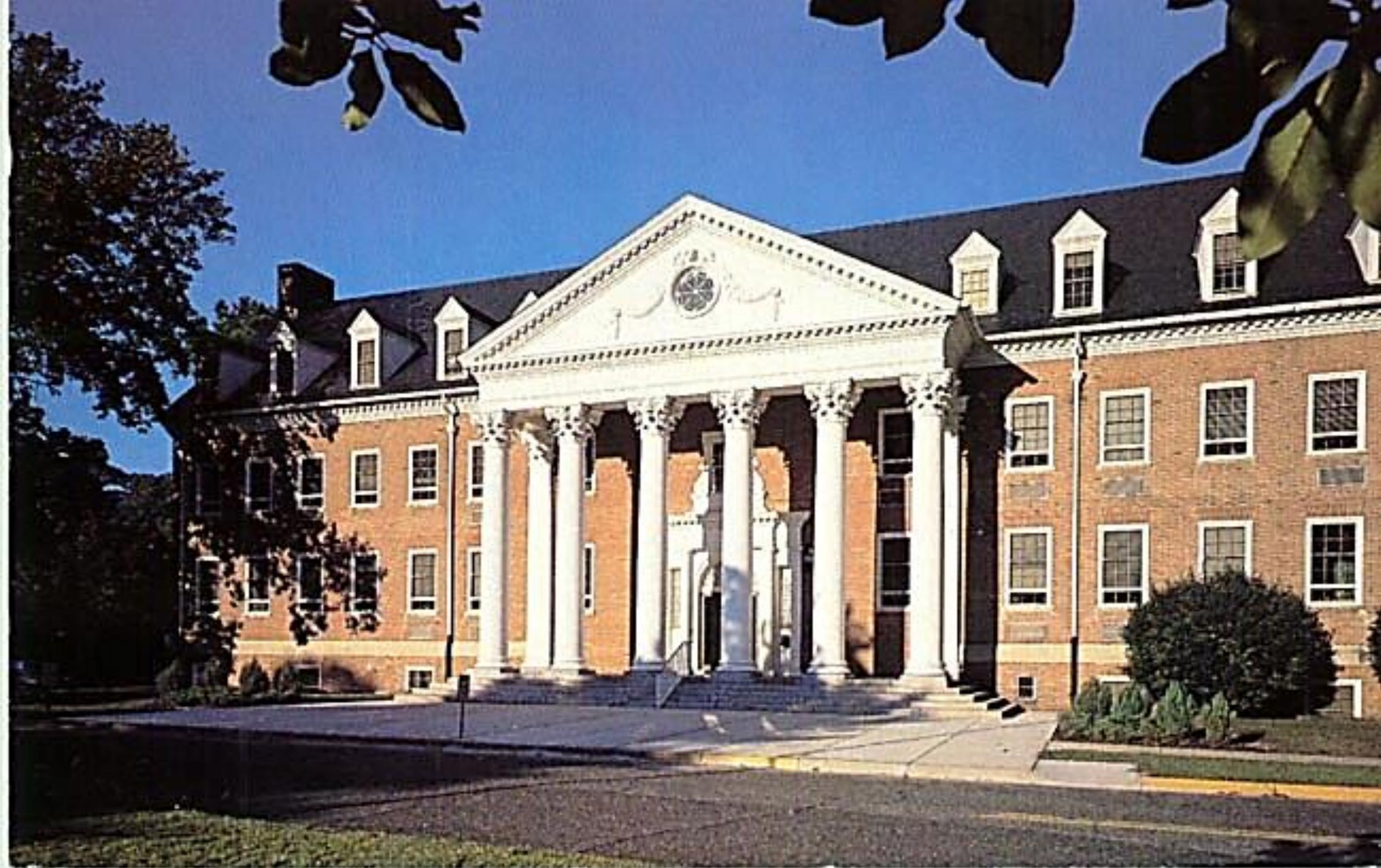


Deer's Head Hospital Center





**Not seen in
This picture
Our new
Kidney dialysis
unit**



**Who are we
at the
Deer's Head
Hospital Center?**



We are divided into 3 major parts

New Kidney Dialysis Unit

Nursing Home-60 beds

Acute Rehab Unit (Unit caring for TB patients)-12 beds

**Our Acute Rehab Unit
specializes in the care of
complex wounds.**

**Long hospitalizations are well tolerated at
Deer's Head**

*The Fishing is
Great.*

TB: An ancient disease known by many names over time

- **Consumption:** Because of the severe weight loss that seemed to consume the patient
- ***Phthisis pulmonaris*** and the **white plague** because of the extreme pallor seen among those infected.

Deer's Head is an example of a Tb sanatoria from the past

- Natural environment
- Easy access to the outdoors
- Restful
- Isolated from normal life
- Pure air that moves freely around the property
- Excellent nutrition is provided

Two patients with an ancient disease called consumption in 2014

- Ancient Greeks called TB, Phthisis or consumption.
- Hippocrates is said to have estimated TB, that is Phthisis, was the most widespread disease of his time.
- It is reported that Hippocrates advised his students to not treat patients in the later stages of Phthisis because they were all going to die. If the new doctors did treat them, they would develop a bad reputation as a healer because they could not be healed.

These 2 men had

consumption.

They did not have the commonly treated “TB” encountered in 2014.

Patient number 1 will be called Mr. “Lunger”

- White male 77 years old
- Prior left upper lobe surgery suspected of being a small resection.
- COPD
- CO₂ retention was suspected on admission to DHHC with an elevated serum CO₂ on arrival
- CO₂ retention was proven at Deer’s Head by blood gases with pCO₂ being 48. He was not on any diuretics nor hypokalemic.
- He had no other known medical problems

Physical exam of “Lunger”

- Weight 83 pounds
- Height 65 inches tall
- Mild tachypnea at rest . Respiratory rate 20
- SaO₂ on room air 98%
- He had marked cachexia. Severe temporal wasting. “ Dachau” look
- Weak but able to walk very short distances.
- No cardiac findings
- Clinical lung exam was one of pulmonary emphysema. Some increase in AP diameter of chest, tall lungs by exam and fair airflow, no wheeze.

Laboratory Evaluation of “Lunger” at April Admission

- PCO₂ was 48
- Serum CO₂ was 33.9
- BUN 11 and Creat 0.82
- Pre-albumin 11.2 Normal range is 18 to 38
- Normal liver function studies
- CBC, Hemoglobin 10.5
- CXR Left upper lobe mass or “pneumonia and small left pleural effusion, TB could not be excluded.

RAD-CCU-RU
POST-CENTRAL LINE PLACEMENT

Ex: RAD-CXR2
83@4MA370350

CHEST PORTABLE X-WISE

Se: 1001/1

Im: 1001/1

CHEST PORTABLE X

Civista Medical Center

1937 Jan 17 M M000512007

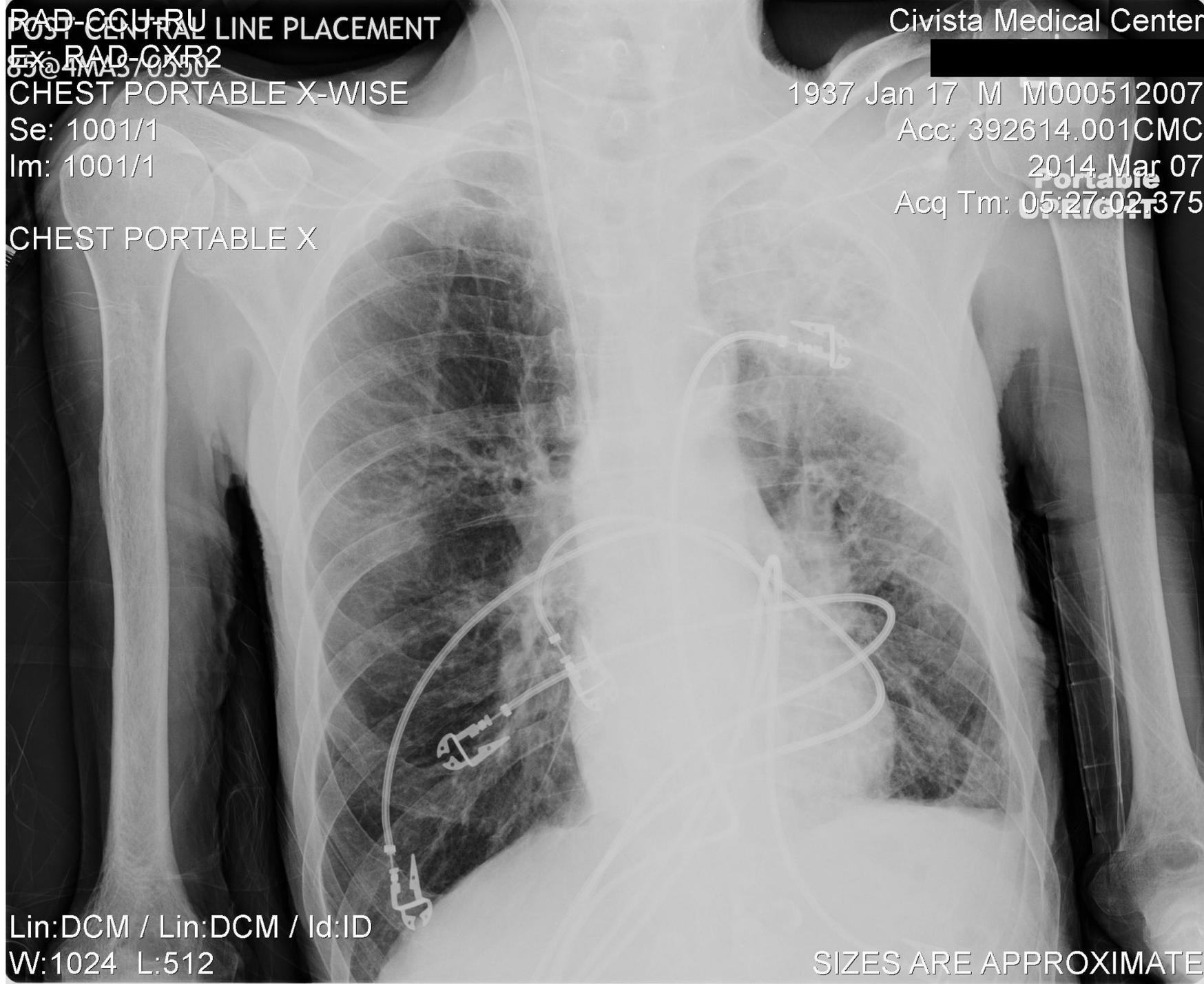
Acc: 392614.001CMC

2014 Mar 07

Acq Tm: 05:27:02.375

Lin:DCM / Lin:DCM / Id:ID
W:1024 L:512

SIZES ARE APPROXIMATE



Initial clinical course

- Anorexic and would not eat.
- Dietitian saw him nearly every day
- Physician saw him every day and encouraged eating
- Physician multiple times explained the consequences of not eating.
- Remeron, Marinol etc no help.
- Weight loss continued. Consumed 200 to 400 calories max a day
- Max support to eat by staff etc no help.
- He became progressively weaker and he felt worse and more weak as the weight loss continue

Initial clinical course

- PEG tube placed and he became stronger and initially felt better.
- Lungs seemed to slowly worsen over time.
- Patient agreed to a PEG tube because of the progressive weakness and how badly he felt.
- Serum CO₂ rose and pCO₂ rose as well. He was on no diuretics and was given extra oral KCL as well. No sedatives.
- Frequent exacerbations of COPD occurred requiring max therapy.
- Eventually exacerbations would not respond to max therapy without steroids being used.

Initial clinical course

- Steroids were tapered at times but higher doses were needed frequently and he never was able to stop them.
- pCO₂ less than 4 months at Deer's Head had rose to 73. PH was 7.37
- He could be improved with max RX and steroids to a pCO₂ of 61 to 64.
- Theophylline helped to reduce his CO₂. No problem ever with levels. All about 8.4
- MAX THERAPY MEANS, YOU NAME IT IN THE TREATMENT OF END STAGE COPD AND HE WAS ON IT AND ON A GOOD DOSE OF IT AS WELL.
- TB drug levels were all therapeutic.

Initial clinical course

- His weight slowly increased over months to 117 pounds. Almost all calories were from his tube feeding via the PEG.
- Hemoglobin improved to 11.8 to 13
- He refused to get up and out of his room when he was allowed.
- His legs remained weak from refusal to walk around or do anything out of bed most days.

Sputum smears and cultures

- First culture was 3/12/14
- Sputum obtained on 5/28
showed no AFB on culture read on 7/17/14
All cultures after were no growth.

Later clinical course

- Chest X-ray improved, hyper aeration of lungs, old granulomatous scarring left lung apex and scarring or markings left mid lung
- DISASTER STRIKES. 11/26/2014. Patient falls and fractures left hip and fibula.
- In hospital for internal fixation he has “fluid overload” noted and “treated”
- Arrives at Deer’s Head in trouble clinically. Clinically in acute pulmonary edema.
- CXR on arrival at Deer’s Head, Fluid overload congestive heart failure.
- Very weak on return

Final clinical course

- Weakness progressed
- Respiratory status did not improve to any degree with RX.
- Patient preferred to not return to the “big hospital” and stay at Deer’s Head.
- He was aware of his steady decline. And agreed with comfort care.
- Respiratory therapist stayed with him at his bedside and comforted him. Staff spent extra time in his room with him.
- He passed quietly on December 14, 2014.

Final note

- Deer's Head is not a very large place and has a very stable clinical staff
- The benefit of being small is the close relationships staff have with all patients.
- For Mr. "Lunger" he had no real family and the staff was his "family".
- Staying with us at the end which is what he desired was because his "family" was there.

Patient number 2 will be called Mr. “French”

- White male a native of French Guiana
- Contracted TB maybe on a return trip to his Country.
- Heavy drinker before he became ill with TB, pint and a half of hard liquor daily
- Heavy smoker in the past
- INH-unable to take. Elevated liver function studies on the drug
- He eats only an ethnic diet.

Physical Exam

- Small cachectic appearing man with severe temporal wasting and the “Dachau” look
- Weight 81 pounds
- Height: 5 foot 3 inches
- Heart: mid systolic click and no murmur
- Lungs: rales and rhonchi over most of the left chest especially upper and clear right chest exam.
- Very productive cough of dirty grey sputum

Laboratory values

- Creatinine 0.5
- BUN 13
- Hemoglobin 10.8
- Liver functions all normal
- Pre-albumin 8.4 normal range is 18 - 38

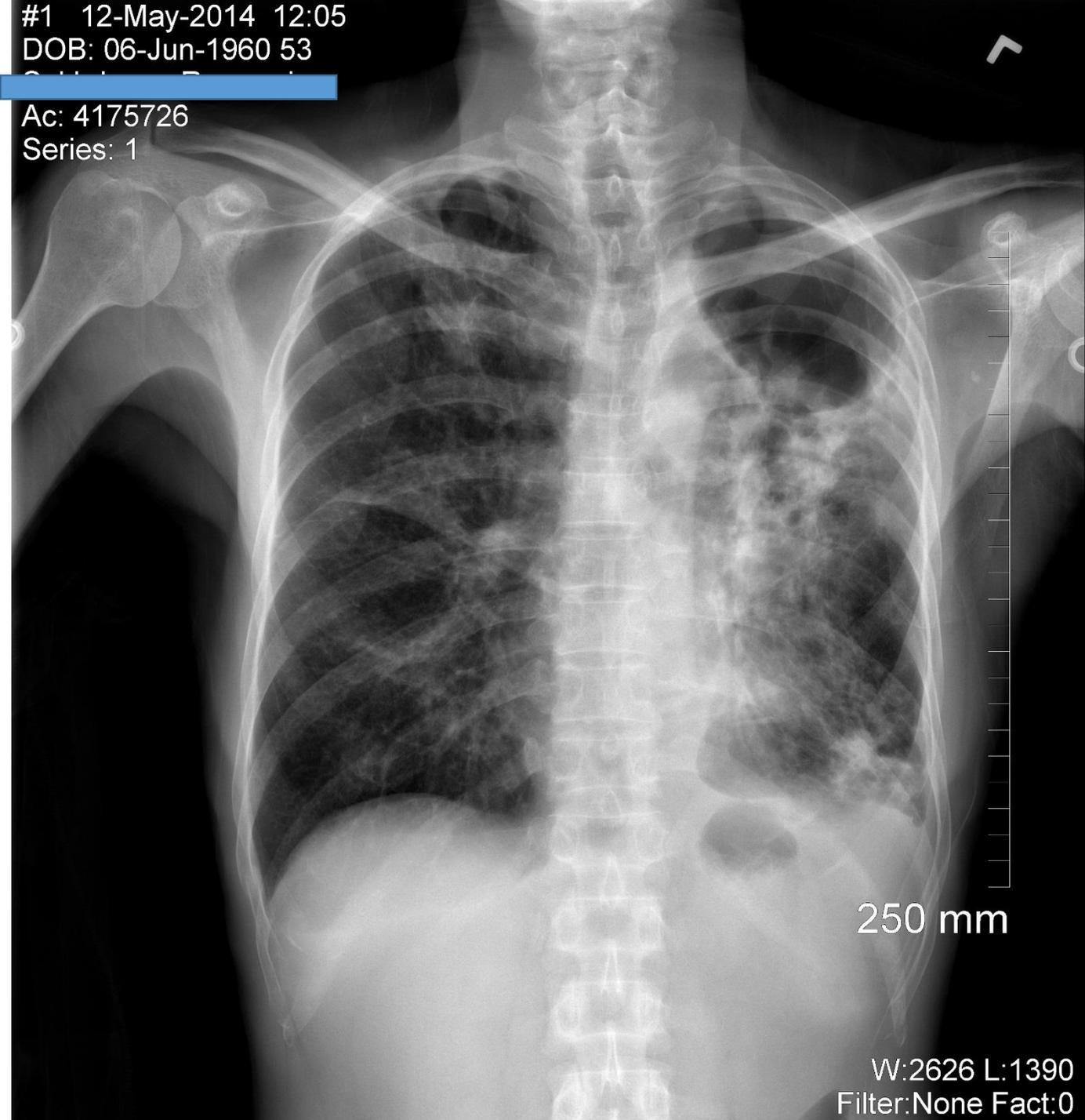
#1 12-May-2014 12:05

DOB: 06-Jun-1960 53

Ac: 4175726

Series: 1

**Chest x-ray
after admitted
to Deer's Head
at 1 month:
5/12/2014,
Large left cavity
9 cm or greater.
Bilateral activity**



250 mm

W:2626 L:1390
Filter:None Fact:0

TB therapy

- Moxifloxacin 400 mg daily
- Ethambutol 800 mg daily
- Rifampin 600 mg daily
- Pyridoxine 50 mg daily

Initial course

Refused to eat anything except that brought in by his family.

- Family brought in plenty of food
- Patient behavior was an issue.
- Food too cold, too hot, too much and not enough.
- Nothing would please him.
- If we satisfied his dietary issues, he would not eat it. Always some excuse: “Do not feel like eating now.” “Will eat later.” “Not hungry.”

Initial course

- Near daily intermittent fever up to 100 to 101.5. He looked sick
- Anorexia however became main problem
- He refused PEG at Franklin Square.
- Weight loss continued. He refused the PEG at Deer's Head
- Slowly failing clinically daily.
- Nutrition became critical and Total Parenteral Nutrition was discussed with him. He agreed eventually.
- TPN given for weeks. Weight loss stopped. Slowly became stronger.
- He started to finally not look seriously chronically ill.

Later hospital course

- Productive cough slowly started to slow up with the TPN after several weeks. Seemed like his body could finally fight the infection.
- Small weight gain with TPN. He began to eat more of his own food as he started to feel stronger and better.
- TPN stopped after 8 full weeks because of suspicion he had developed a PICC line infection
- Weight rose to 124 pounds steadily over months once TPN was stopped.
- Sputum production did not go away, but was very scant most of the time late in his course.

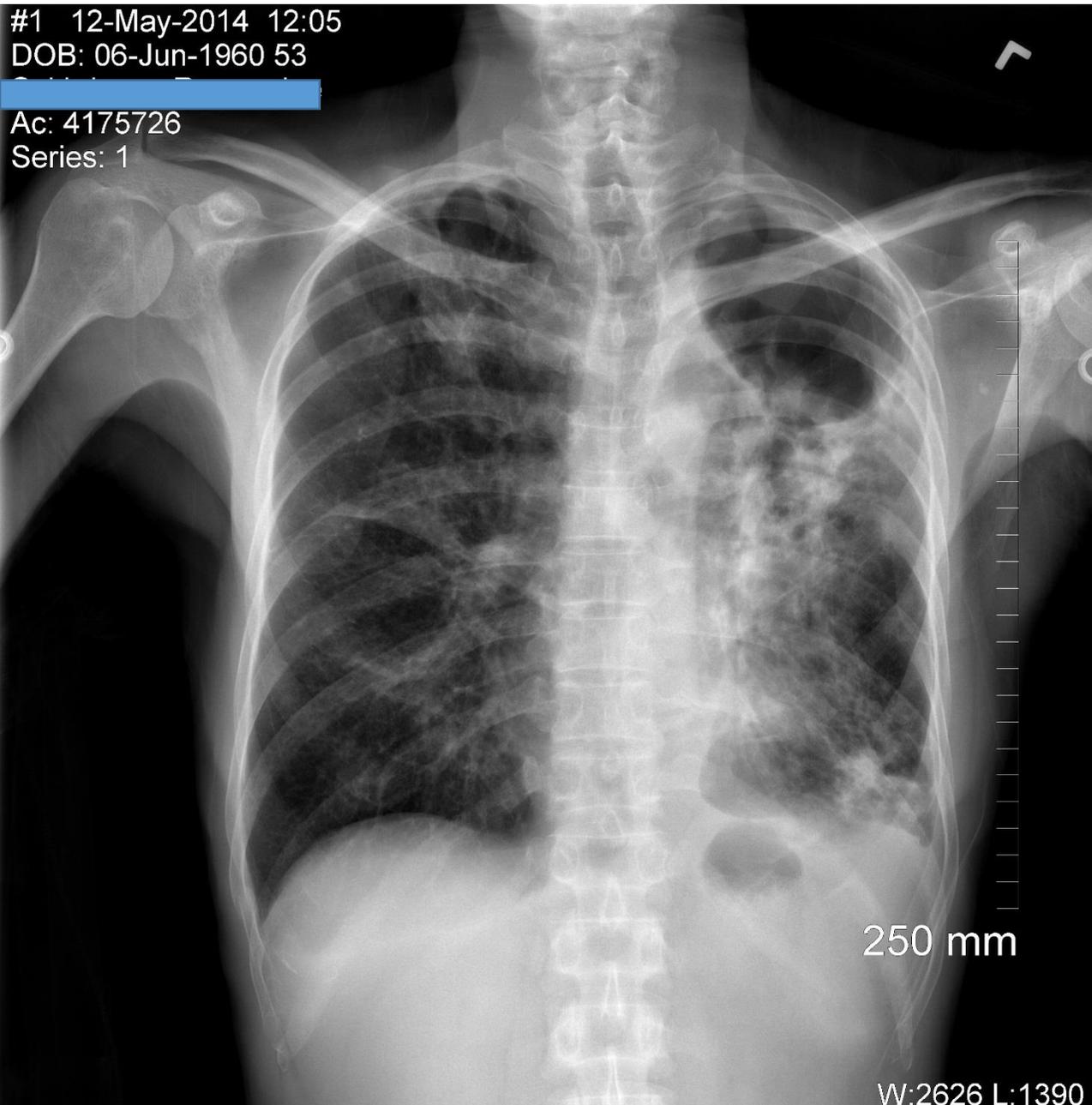
Sputum cultures and smears

- 2/26/2014 Drug susceptibility: Resistant to PZA.
Susceptible to Streptomycin, INH, RIF, and Ethambutol
- 5/12/2014 First sputum to be culture negative and reported on 7/7/2014

Chest x-ray: early

#1 12-May-2014 12:05
DOB: 06-Jun-1960 53

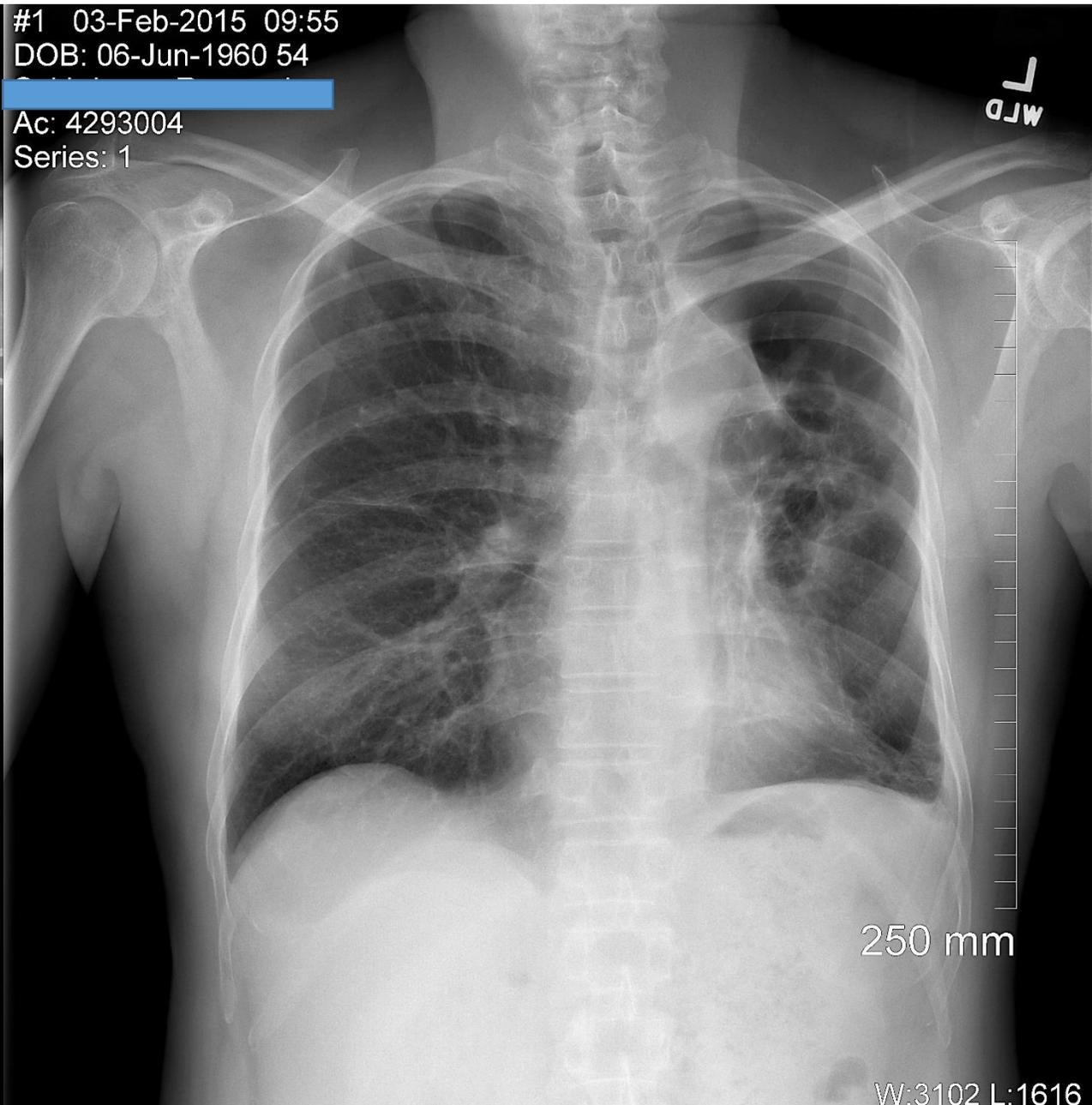
Ac: 4175726
Series: 1



Chest x-ray: late

#1 03-Feb-2015 09:55
DOB: 06-Jun-1960 54

Ac: 4293004
Series: 1



Late Clinical Course

His hospital course was from 4/14/2014 until 2/18/2015.

He was an infrequent cough at the time of discharge.

Had a weight gained of 48 pounds while at Deer's Head.

He dietary intake and food selection improved, as well.

What is the treatment of consumption before it consumes the patient?

Feed the patient, if he or she will eat

Stimulate appetite with available medications

Provide needed nutrition by PEG tube until patient is able to consume adequate nutrition and calories

In unusual cases, intravenous hyperalimentation can be offered

Is the prior slide correct?

What do you think?

Two men fed by alternative means.

Two different methods used.

What do you think using Avelox in our patient with a large cavity?

- Risk of recrudescence given recent NEJM articles?
- Treatment of large cavity. Is any required?

Thank you!

Questions