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Medico-Surgical ICU

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Brussels, Belgium

## G.M., 47 year

- E.R. for respiratory distress and hypotension
- **Past history**: Smoker, Asthma?  
(inhaled steroids and salbutamol)
- **Present history**: Fever for > 5 days  
Macrolides by G.P. (?)

*Admitted to E.R. worsening of her general condition, dyspnea, chills and cyanosis*

### **Clinical examination**:

Conscious by stuporous

RR: 36/min., HR: 140/min, T° 39 Celsius and

BP: 65/30mmHg Purulent sputum (42kg)

## Blood analysis

- paO<sub>2</sub>: 42 mmHg      lactate: 5.7mmol/l
- Creatinin: 1.55mg/dl
- WBC: 18,310/mm<sup>3</sup> (94% N)

## Evolution

- Mechanical ventilation
- Vasopressors
- Oliguria
- Sputum: Gram (GN rods)
- Blood cultures

# G.M., X-ray on admission



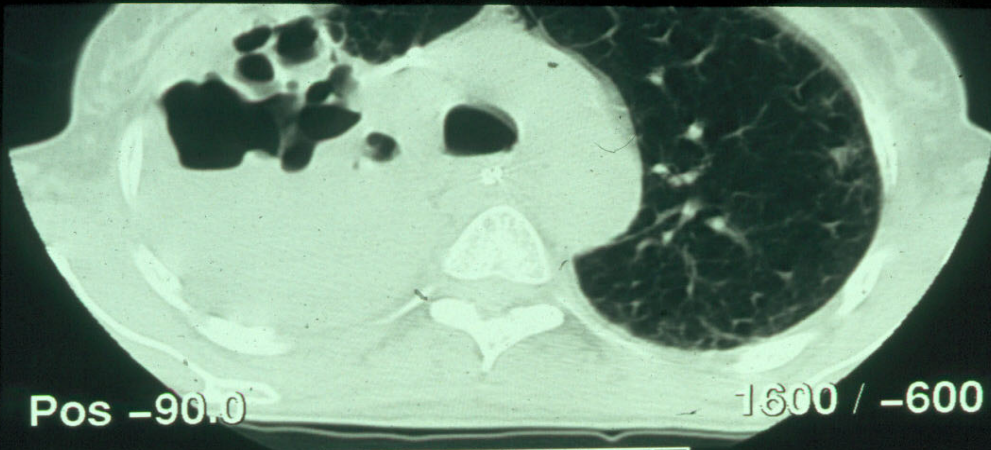
## Treatment:

- Day 1: Ceftazidim 2gr/8h  
Gentamycin 240mg (day 1) , 80 mg day 4
- Day 3: Ceftazidim 1gr/8h, until Day 11
- Sputum : Pseudomonas aeruginosa
- Blood cultures: Pseudomonas aeruginosa (x6)  
(MIC Ceftazidim: 1.5)

G.M., X-ray on day 4



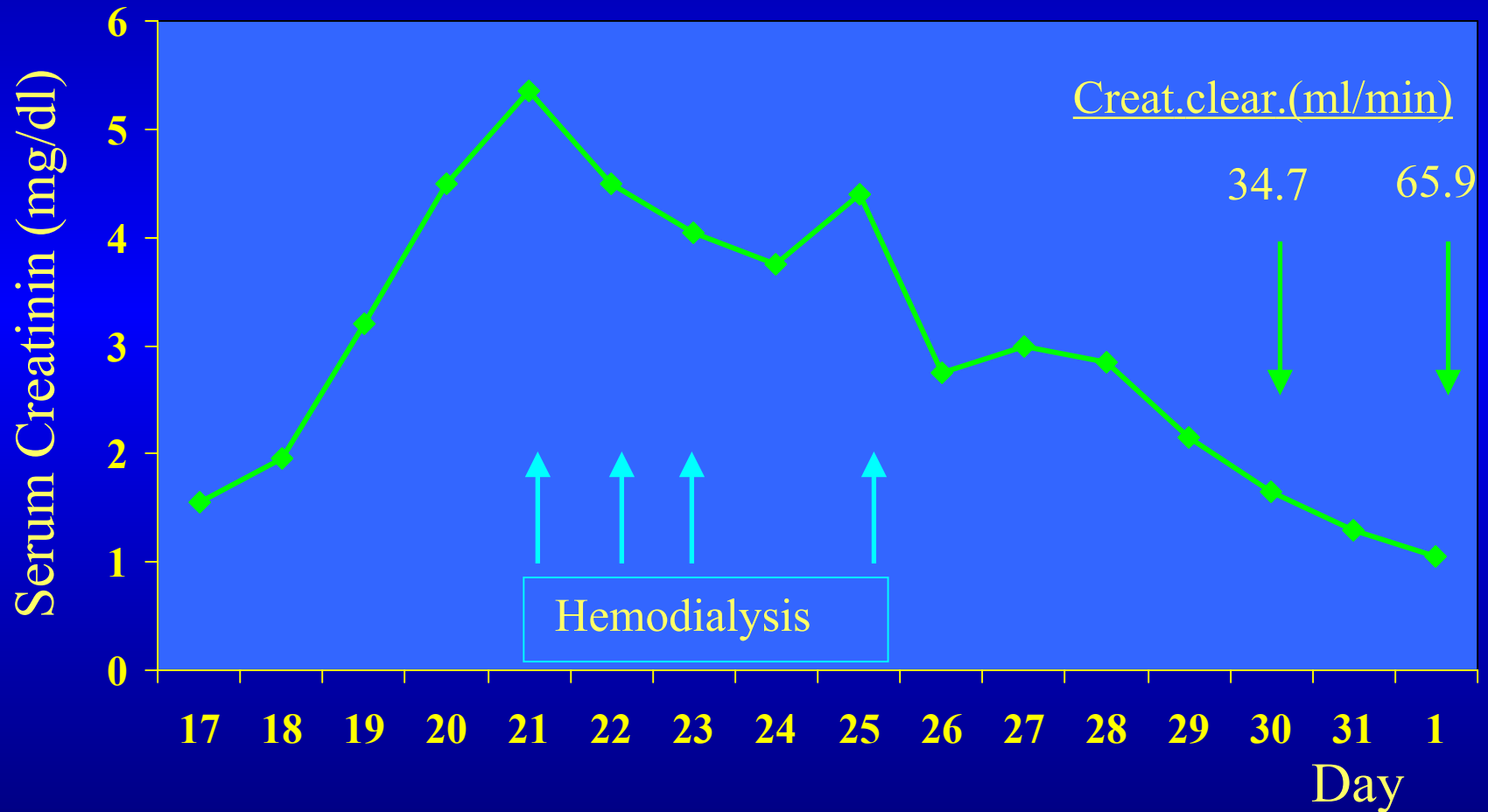
Chest CT Scan  
(day 4)



D2/15a



# G.M., Creatinin and renal replacement



## Evolution

- Fever controlled on day 2
- Shock control within 3 days, vasopressors weaned on day 5
- Sputum clearance on day 3

**Day 10:** Sputum positive for *Pseudomonas aeruginosa* (moderate)  
Ceftazidim R, Piper. R, Ciprofloxacin S

**Day 11:** → Ciprofloxacin 400mg/8h  
for 14 days (creatinine clearance 34-78ml/min)

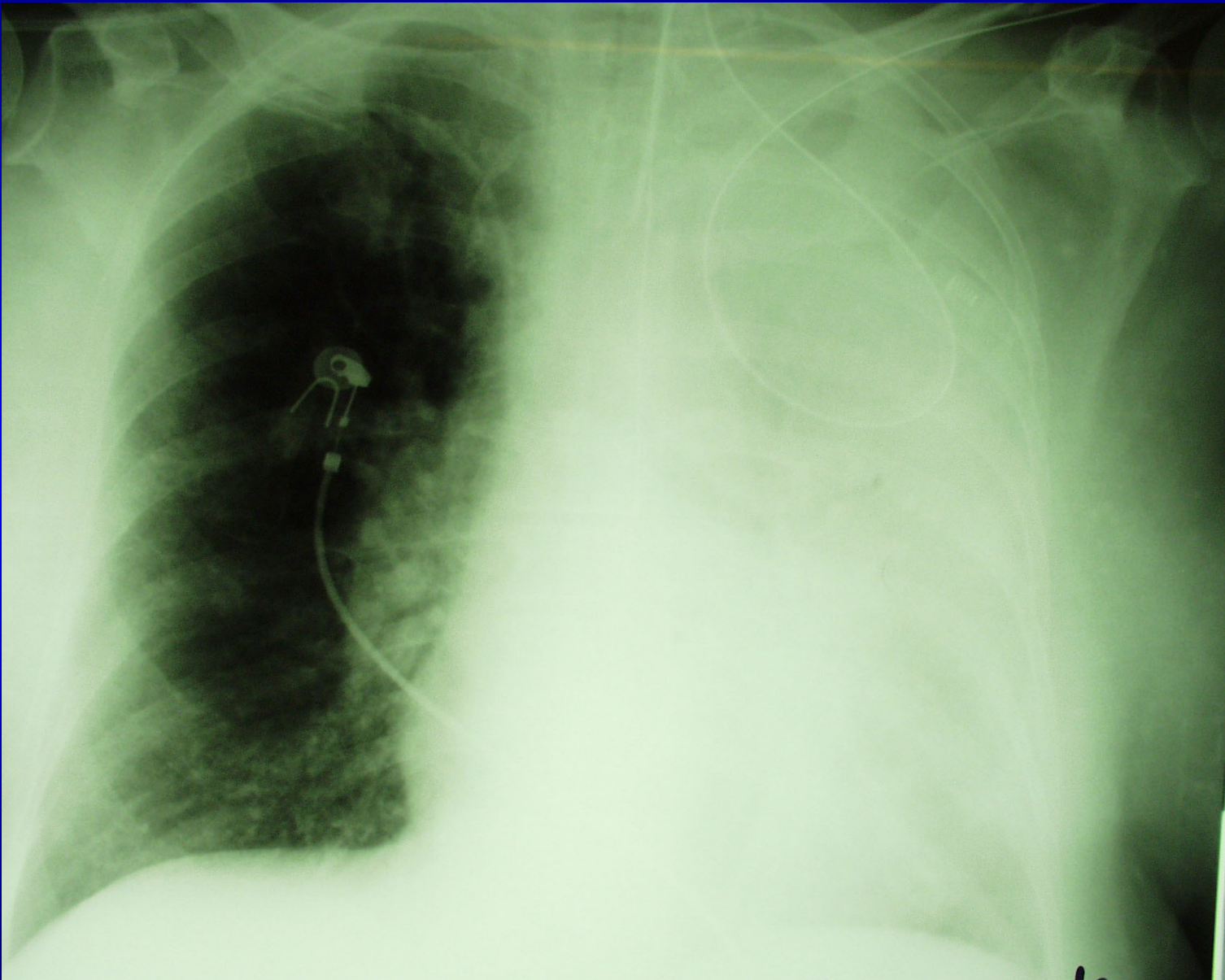
## Evolution

- Clinical improvement
- Persisting purulent discharge
- Absence of fever recurrence or inflammatory sign
- Discharge from ICU
  
- Day of discharge: Sputum with persisting *Pseudomonas*  
Ciprofloxacin R

## G.M., 52 year

- E.R. for respiratory distress, confusion, fever
- Past history
  - Obesity (95 kg 163 cm)
  - Diabetes (type II)
  - Hypertension
  - Smoker
- Present history
  - Fever and dyspnea for a week
  - Altered mental status
  - Worsening in general condition and dyspnea
  - ICU for hypoxemia, mechanical ventilation

G.M.R. Admission X-ray



## Blood analysis and treatment

- paO<sub>2</sub>: 41 mmHg, Sat. 69%
- CRP : 42 mg/dl
- Serum creatinine: 1.4 mg/dl
- WBC : 16,040/ mm<sup>3</sup> (N 92%)

## Therapy

**Day 1** Cefotaxime 2gr/8h

Sputum and Blood negative

**Day 3** + Erythromycin 1 gr/ 6h

## Evolution

- Shock and vasopressive agents
- ARDS
- Renal failure
- Liquid ventilation
- CVVH day 2

*Urine: Legionella Ag + + +*

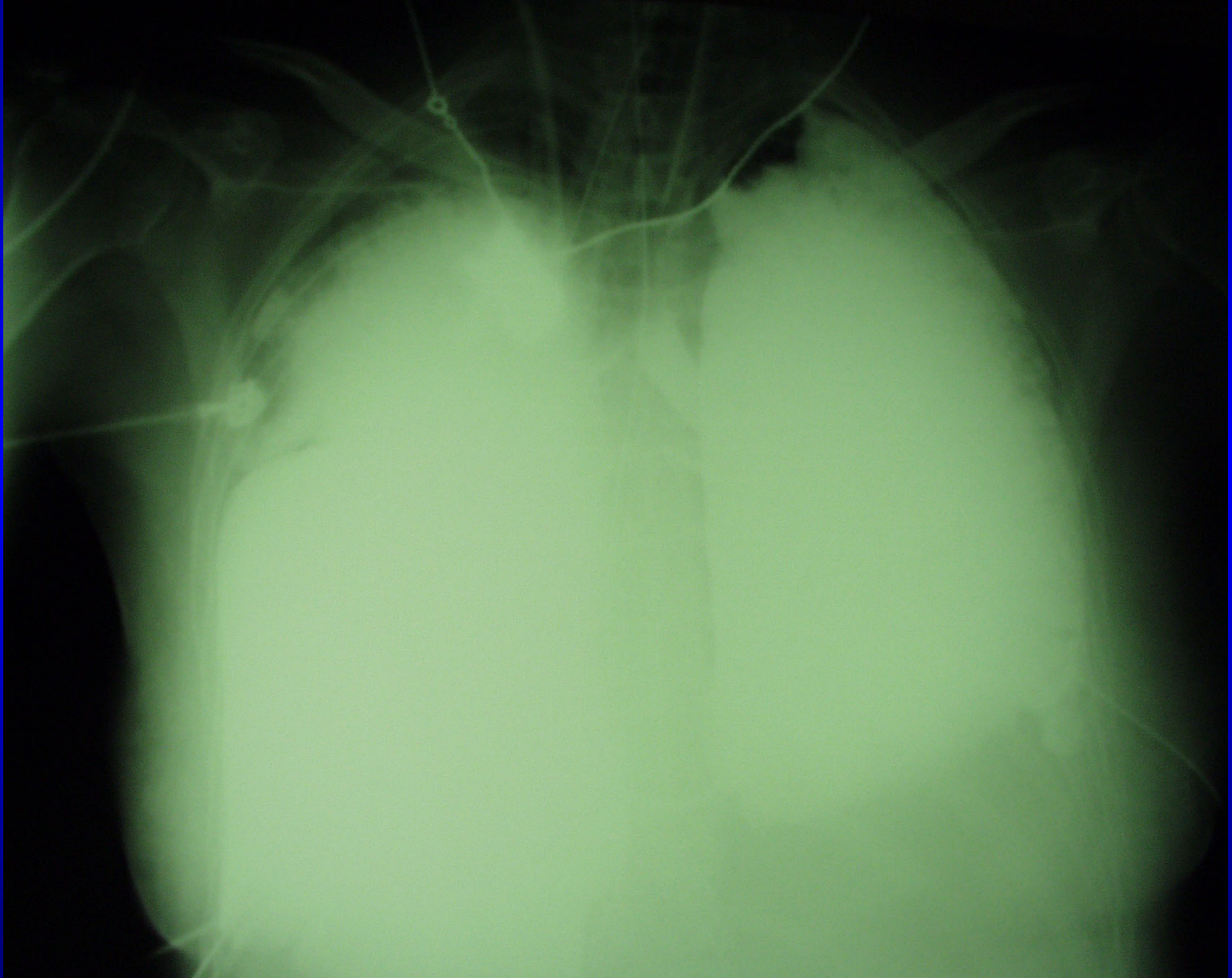
**Day 5** : Stop Cefotaxime

Erythromycine maintained (14 days)

## Follow-up

- Day 10: Purulent sputum  
No fever (CVVH)  
WBC : 30,000/ mm<sup>3</sup> (N 91%),  
CRP increased 24 mg/dl
- Chest X-ray
- Sputum: *Pseudomonas aeruginosa*
- Ongoing renal failure and hemofiltration

G.M.R.



# Treatment and follow-up

- *Pseudomonas aeruginosa*  
Ceftazidime S (MIC 1.4) Amikacin S (MIC 3)
- Ceftazidime 2gr/8h + Amikacin 15 mg/kg (first dose)

Ceftazidime 1gr/8h for following 8 days  
and one additional dose of Amikacin on day 3

- CVVH during the entire antimicrobial treatment
- Clinical improvement, reduction  $fiO_2$ , purulent sputum cleared
- End of treatment: rare *Pseudomonas aer.* but MIC : 91