

# Vive la résistance?

Tom Wingfield  
North West TB Conference  
Monday 12<sup>th</sup> November 2018

# 49 Year Old Male, Transfer

- **PC**: 4/7 Acute bloody diarrhoea
- **HPC**: 2/12 – Abdominal pain; loss of appetite; weight loss
- **PMH**:
  - Type 2 DM
  - Hypertension
- **MH**: Metformin; Gliclazide; Lisinopril
- **NKDA**
- **SH**: Congolese, UK 10 yrs
- **O/E**: Pyrexial; dry  
Poor urine output
- **Initial Bloods**:
  - Lymphopenia
  - Renal failure

# 49 year old male, CXR



# Day 4

- HIV positive (CD4 10)
- Hepatitis B (eAg positive; HBV DNA 4512 copies/ml)
- Patient informed and HIV MDT involved
- Isospora found in stool, treated with septrin

# Day 5

- SH:

- Divorced: “**...don't want to talk about it**”
- 2 children, different mothers: “**..they live in Paris**”
- Declines to answer re sexual history

# Week 2

## Existing Issues:

- HIV and HBV
- Improving diarrhoea
- Improving Renal Impairment

## Other issues:

- Withdrawn, evasive and occasionally aggressive

## New Issues:

- Spontaneous sputum AAFB positive

# What do you do now?

1. Nothing (“Masterly Inactivity”)
2. Repeat sputum AAFB
3. Further imaging of chest
4. Start TB treatment
5. Start ARVs

# Week 2, TB therapy commenced

- **TB:**
  - Rifampicin
  - Isoniazid
  - Pyrazinamide
  - Ethambutol



# Week 3 and 4, Developments

- HIV adherence nurse review:
  - “It’s too early” / “Will I ever be HIV negative?”
  - “I think God will cure me”
- TB nurse review:
  - “I don’t want to speak to you”
  - “I’m not giving you details of contacts”
  - “You’re not doing a home visit when I go home”
- Paranoid behaviour (normal LP/MRI brain/psych review)

# Week 4

- ART and HBV treatment started
- Discharged home
- Refuses home visit from TB nurse
- Alternative visits organised

# Week 7

- Spontaneous Sputum Sample:
  - Mycobacterium TB Growth
  - Resistant to Rifampicin and Isoniazid

# What would you do now?

1. Re-send sputum samples and reassess
2. Continue current therapy
3. Admit and start MDR-TB therapy
4. Start oral MDR-TB with community DOTS

# Week 7, Our Plan

- Admit to negative pressure room
- Start
  - Amikacin
  - Pyrazinamide
  - Ethambutol
  - Moxifloxacin
  - Prothionamide
  - Azithromycin

# Week 7, Other Plans

- “I’m in Leeds”
- “I need to speak to my solicitor”
- “How did you get my treatment wrong?”
- “I’m not talking to you about contacts”
- “I owe money on my flat”



.....2 days later

- Arrives on ward

# Week 7, Treatment

- Tolerating MDR-TB regime well
- Welfare team inform us: no work permit; self-employed
- Becoming increasingly frustrated
- Tries to leave





Can we keep someone in  
hospital against their will?

# Public Health Act 1984

- Remove TB patients to hospital and detention when they are unwilling to comply with treatment<sup>1</sup>
- Does not extend to compulsory treatment<sup>2</sup>

1) Da Lomba, S. & Martin, R. Medical Law International, 6, (2), 2003

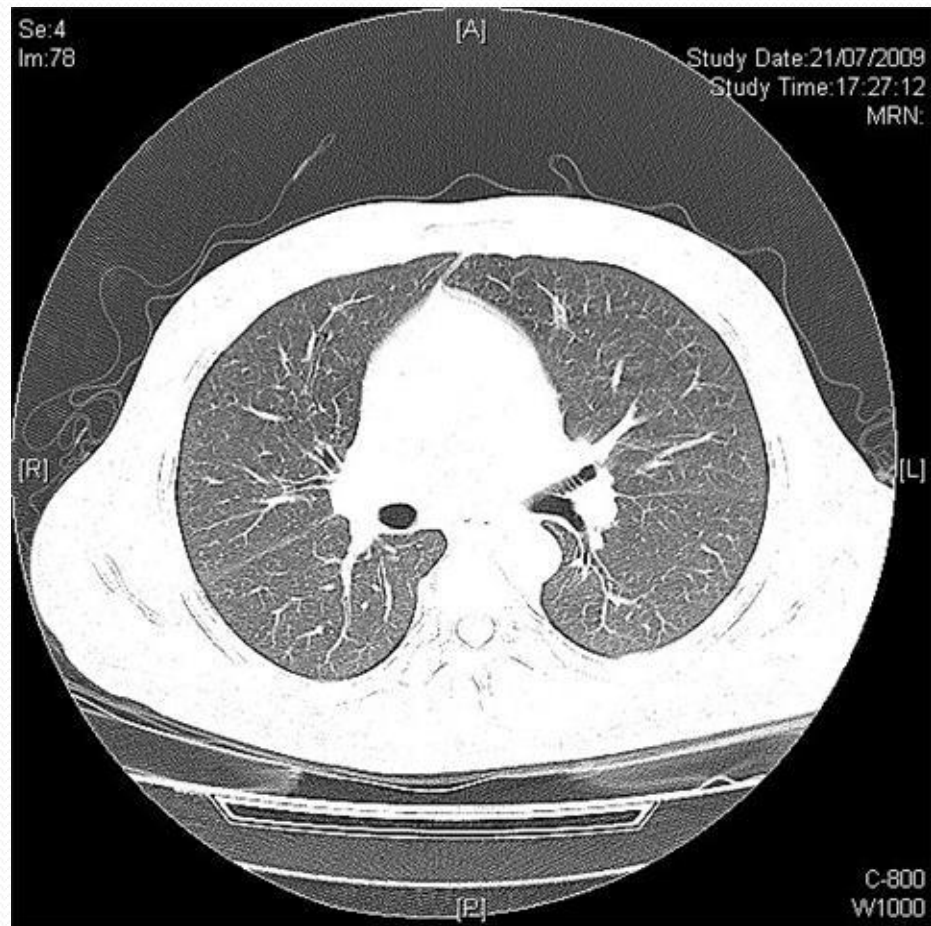
2) Ohkado, A et al, Health Policy, 73, (1) 104-123, 2005.



# **TB sufferer under guard in hospital**

**“A PATIENT is being held under guard to  
prevent him from leaving a hospital  
ward and spreading TB.”**

# Weeks 8-9, Updates



# Weeks 8-9, Updates

- **Spontaneous** sputum: Smear positive and MDR TB on culture (with additional resistances)
- Induced sputum x3 AAFB negative
- Stool x3 / EMU x3 – AAFB negative
- Mycobacterial blood culture x2 – negative
- CXR/HRCT normal

# Week 9, Resistance profile

| <b>Antibiotic</b>     |          |
|-----------------------|----------|
| <b>Rifampicin</b>     | <b>R</b> |
| <b>Isoniazid</b>      | <b>R</b> |
| <b>Pyrazinamide</b>   | <b>S</b> |
| <b>Ethambutol</b>     | <b>S</b> |
| <b>Rifabutin</b>      | <b>R</b> |
| <b>Ciprofloxacin</b>  | <b>R</b> |
| <b>Azithromycin</b>   | <b>S</b> |
| <b>Clarithromycin</b> | <b>S</b> |
| <b>Streptomycin</b>   | <b>R</b> |
| <b>Amikacin</b>       | <b>S</b> |
| <b>Capreomycin</b>    | <b>S</b> |
| <b>Kanamycin</b>      | <b>S</b> |
| <b>Moxifloxacin</b>   | <b>R</b> |
| <b>Ofloxacin</b>      | <b>S</b> |
| <b>Prothionamide</b>  | <b>R</b> |

# Week 9, The Bloke Next Door

- And then there was that bloke in the room next door when our patient was first admitted....

# Week 9, Bloke next door's CXR





# Week 9, Sputum Doppelganger

## Our Patient's Sputum

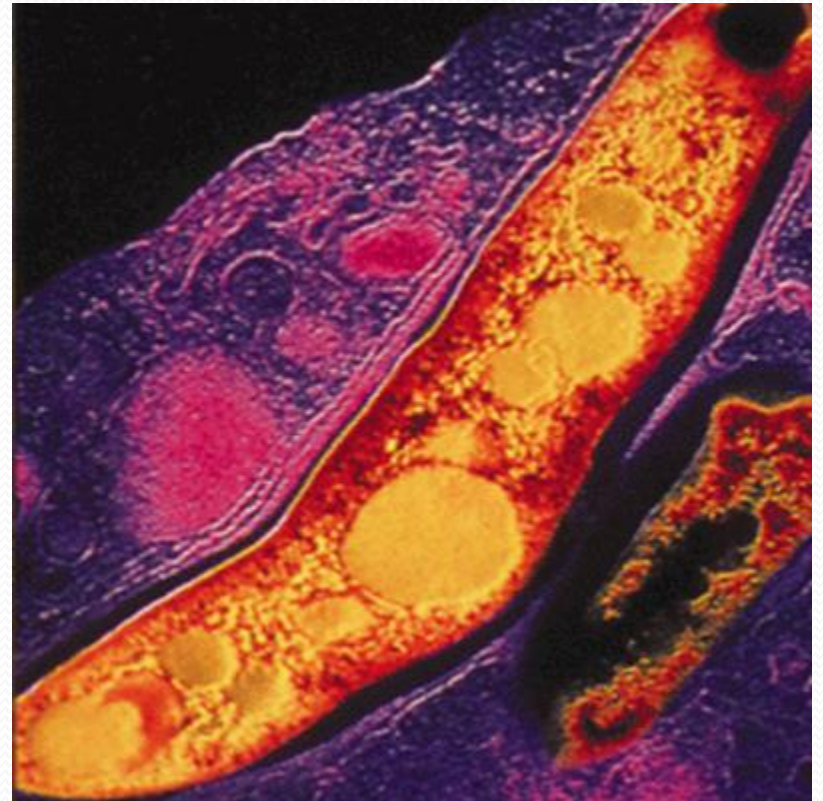
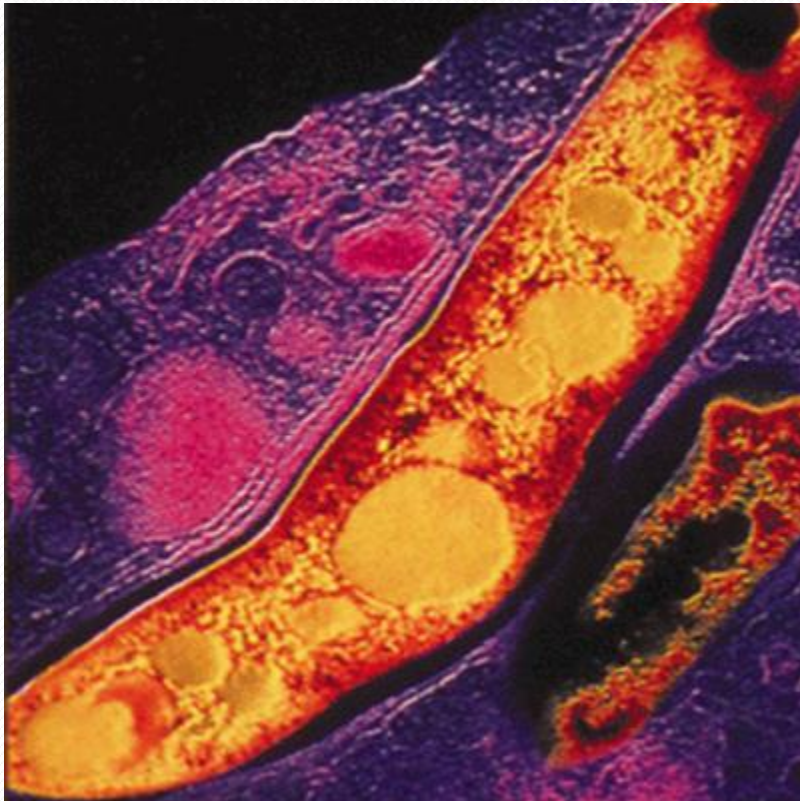
| Antibiotic     |   |
|----------------|---|
| Rifampicin     | R |
| Isoniazid      | R |
| Pyrazinamide   | S |
| Ethambutol     | S |
| Rifabutin      | R |
| Ciprofloxacin  | R |
| Azithromycin   | S |
| Clarithromycin | S |
| Streptomycin   | R |
| Amikacin       | S |
| Capreomycin    | S |
| Kanamycin      | S |
| Moxifloxacin   | R |
| Ofloxacin      | S |
| Prothionamide  | R |

## Bloke Next Door's Sputum

| Antibiotic     |   |
|----------------|---|
| Rifampicin     | R |
| Isoniazid      | R |
| Pyrazinamide   | S |
| Ethambutol     | S |
| Rifabutin      | R |
| Ciprofloxacin  | R |
| Azithromycin   | S |
| Clarithromycin | S |
| Streptomycin   | R |
| Amikacin       | S |
| Capreomycin    | S |
| Kanamycin      | S |
| Moxifloxacin   | R |
| Ofloxacin      | S |
| Prothionamide  | R |

# Week 12

- Two Strains of MDR TB identical by DNA fingerprinting



# Week 12

- Our patient does not have MDR TB
- Our patient does not have TB



What would you do now?

# Week 12, Plan of action

- Inform patient, invite in for discussion
- Stop TB meds
- Inform HPA / TB community team / press officer
- Inform hospital legal team
- PALS information provided
- Incident forms
- Root cause analysis
- New unit guidelines on sample labelling/processing

# Summary

- HIV with co-infections complicated management
- New guidelines available for HIV/TB co-infection
- Holistic care / MDT approach
- Hospital and community care
- Public health law
- Management / risk management issues