

FEVER EPISODE DURING A DIALYSIS SESSION
PROTOCOL OF MANAGEMENT
AND MICROBIOLOGICAL INVESTIGATION

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ANAMNESIS



July 30, 2004, Haemodialysis Dpt

FOUR PATIENTS RE -ADMITTED
Fever +++ (40°C)

P. aeruginosa isolated from 1BC



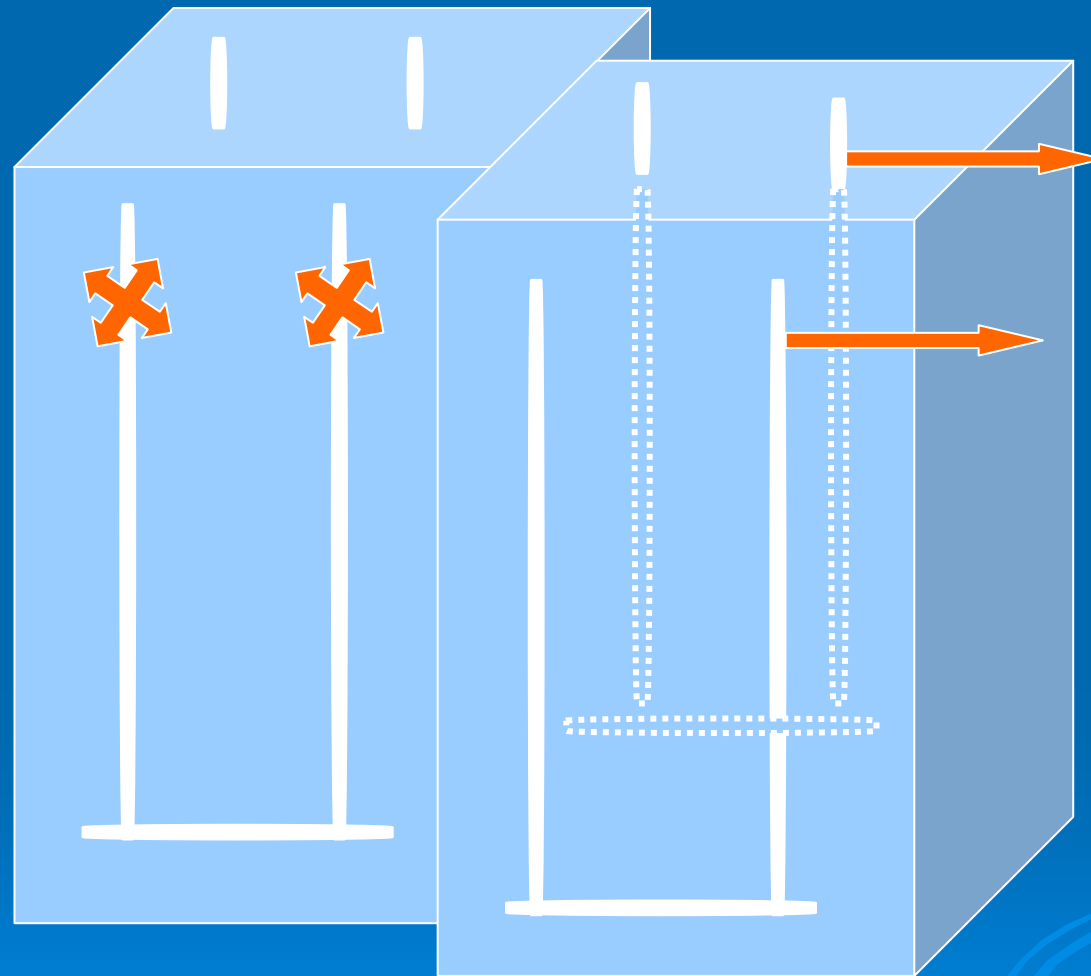
July 28, 2004, Nephrology Dpt

2 *P. aeruginosa* positive samples
Isolated from water

WATER NETWORK DIAGRAM

2 blocks

7 levels



Nephrology network

Haemodialysis network

CONSTITUTION OF A CRISIS STRUCTURE



PHARMACY



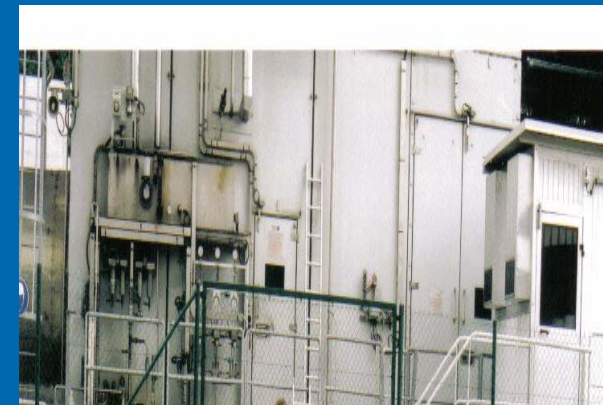
HAEMODIALYSIS
DPT

Physicians, Nurses...

INF CONT COMMITTEE
MICROBIOLOGY LAB



ADMINISTRATIVE DPT



TECHNICAL
DPT

JULY 30: ADMINISTRATIVE DEPARTMENT

Is it necessary to stop the haemodialysis activity?

29 machines involved

20 sessions a day

More than 20 patients should have to

be re-oriented to other structures

Pb of medical responsibility



TECHNICAL DEPARTMENT AND PHARMACY

JULY 30

NEPHROLOGY

- ▶ **Descaling and Disinfection** of the positive points
- ▶ **Disconnection of *P. aeruginosa* positive points** (photoelectrical cell – water faucet)

HAEMODIALYSIS

- ▶ Installation of **water filters** in selected points

GLOBAL NETWORK

- ▶ **Chloride 0.3 ppm** at the 7th level

INFECTION CONTROL COMMITTEE

July 30 - August 4

- ▶ **Regular meetings** with the Haemodialysis staff
- ▶ **Informations** about the **bacterium**, the **transmission**, the **risks factors**, the **prevention**
- ▶ **Reassessment** of **Standard hygienic measures**

HAEMODIALYSIS DEPARTMENT

JULY 30

PATIENT + FEVER



SYSTEMATIC BLOOD CULTURE
Central + peripheral



DIALYSIS WATER
MICROBIOLOGICAL
ANALYSIS + ENDOTOXIN



DIALYSATE
MICROBIOLOGICAL
ANALYSIS + ENDOTOXIN

MICROBIOLOGY LABORATORY

JULY 30

IMMEDIATE SAMPLING IN SEVERAL WATER POINTS OF THE DPT

PATIENT STRAIN

NEPHROLOGY
ENVIRONMENTAL
STRAIN

ANTIBIOTYPE AND SEROTYPE

RAPD ANALYSIS



MICROBIOLOGY LABORATORY

JULY 31



1/

→ **Blood Culture and Environmental strains**
Different Antibiotypes and Serotypes
Different RAPD patterns

- 2/ **No *Pseudomonas aeruginosa* strains in any environmental sample from Haemodialysis** idem on August 4, 2004
- 3/ ***P. aeruginosa* biofilms in photoelectrical-water faucet (Nephrology)**
- 4/ **Patient 2 *E. aerogenes* positive BC**
Patients 3 and 4 no infectious etiology

CONCLUSION

