if Infektiologie Freiburg
beraten–behandeln–forschen

Is antimicrobial multidrug resistance really a great problem?

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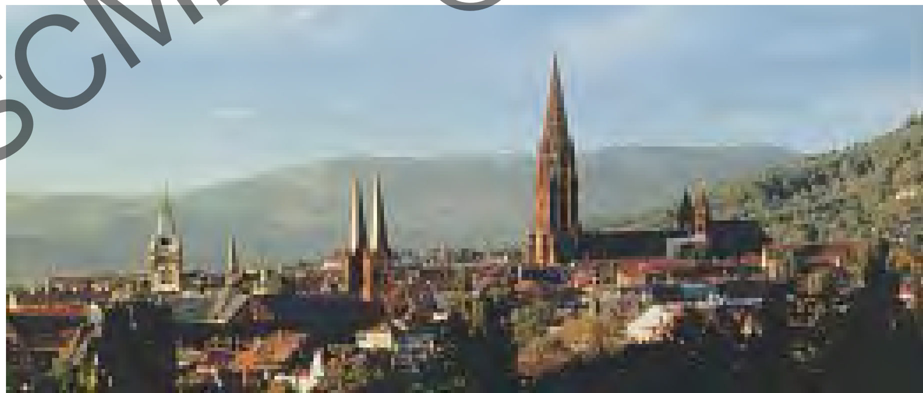

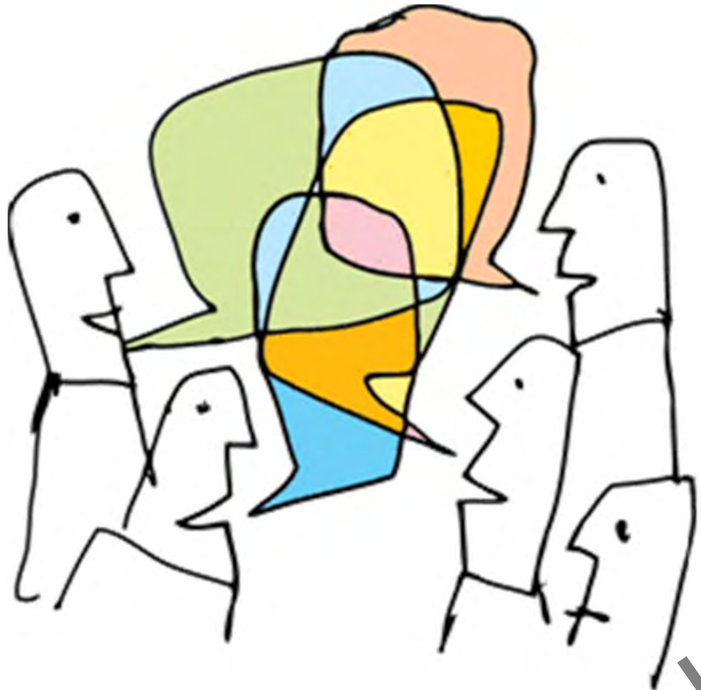

A problem for whom ?

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… a problem for whom ?

- the traveller to India (with intestinal ESBL-*E.coli* colonization) ?
- dto. with urinary tract infection (pyelonephitis) two weeks after returning from the trip ?
- the 90-yr old male with prostatic cancer, con-fusion, and bacteriuria (?infection?) due to VRE + carbapenem-resistant *P. aeruginosa* ?
- the 73-yr old male with vertebral osteomyelitis due to MRSA ?
- the alloSCT recipient with KPC2 bacteremia and shock ?

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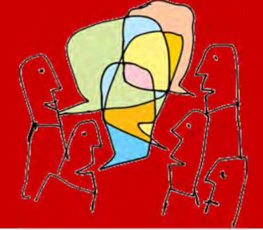

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- A problem for my microbiologist ?

… perhaps, if he …

did not inform all those involved early enough about the carbapenem resistance, and the patient died

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- A problem for my ID consultant ?

… perhaps, if he …

asked me whether KPC2 would in fact mean ***K***.***p**neumoniae* resistant to **c**ephalosporins of the **2**nd genera-tion

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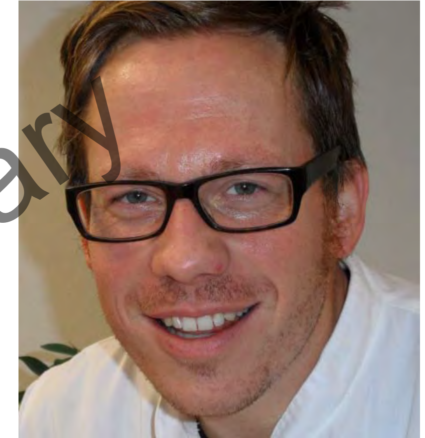
ID CONSULT



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- A problem for me ?

… as an ID physician working on MDR and on antibiotic strategies:

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- A problem for me ?

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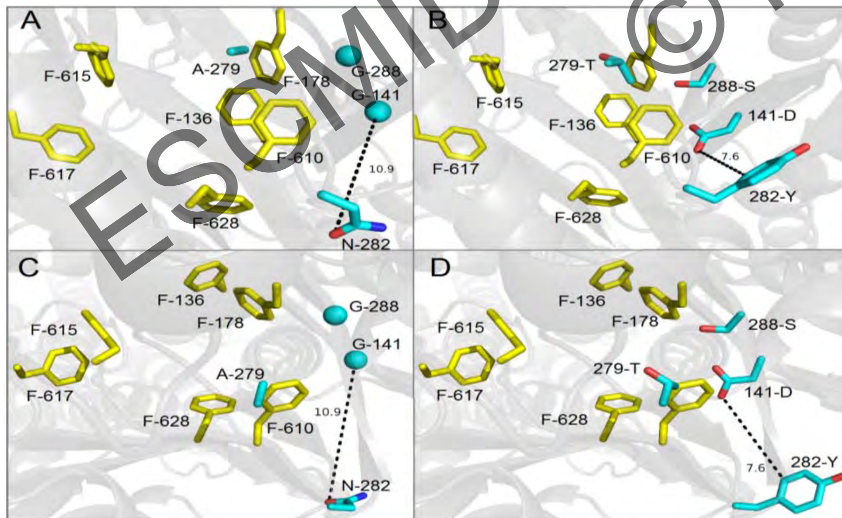

NO

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- A problem for me ?

… as an ID physician consulting in the ICU on this particular KPC2 patient:

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- A problem for me ?

… as an ID physician consulting in the ICU on this particular KPC2 patient:

OMNICARBAPENEX
EVERYMYCIN
ANTIFLOXACIN
ANYBACTAM
…

NO

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- A problem for the patient ?

… probably yes, if …

the *Klebsiella* had a meropenem MIC of >32 µg/mL, and the doctor (intensivist or hematologist !! ??) prescribed (… modern ..) high-dose (3x2 g) meropenem with colistin 3x1 mio units per day (…. old-style …)

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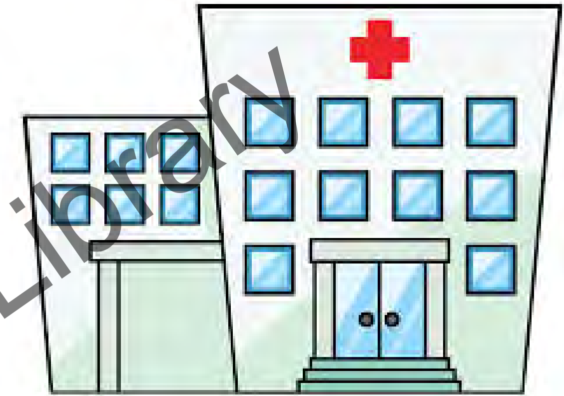

- A problem for the hospital ?

… probably yes, if …

the *Klebsiella* spread unrecognized to wards and affected patients vulnerable to gram-negative infection

… and …

there was no ID service available tasked with optimized treatment

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- A problem for society ?

… probably yes, if …

everybody used for almost all acutely ill patients initial empirical therapy with a carbapenem

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… in more general terms

- MDR is a great problem for the most severely ill and for society in the future
  - more deaths, limiting the progress of modern medicine
  - more efforts (more ID & CM among other things) and cost

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  - better understanding of mechanisms of (co-)resistance development
  - better definition of clinical breakpoints (I hate S + R) and recognized more need for clinical validation

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  - ➡ „intelligent“ prescribing ?

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