**MICROBIOLOGY 2**

**HOSPITAL infections**

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In this lecture we will cover hospital acquired **bacterial** infections and define what is considered as hospital acquired infection

We will specifically cover the following bacteria and infections caused by them

* 1. *Staphylococcus aureus*
	2. *Klebsiella pneumonia*
	3. *Pseudomonas aeruginosa*
	4. *Enterococcus*
	5. *Escherichia coli*
	6. *Clostridium difficile*
	7. *Acinetobacter baumanii*

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We will cover antimicrobial resistance in health care associated infection

**Infection in Hospital with resistant organisms is associated with:**

- longer hospital stays

- increased healthcare costs

- increased mortality



**The Infamous Five for antibiotic resistant infections in the UK**

*Gram negative*

……………………….Hospital acquired pneumonia, UTI, particularly affects immune compromised hosts (e.g. chemotherapy, individuals with cystic fibrosis). Survives on abiotic surfaces

………………………..Extended spectrum *b*-lactamase producers. *E. coli, Klebsiella*

………………………... ITU infections, Survives on abiotic surfaces

*Gram positive*

……………………… colonises skin and nasopharynx, Causes line associated sepsis, urinary tract infections, bloodstream infections, disseminated spread

………………………commensal of gastrointestinal tract. Causes line and urinary tract infection

Insert: *Enterococcus faecium*, Methicillin Resistant *Staphylococcus aureus*, ESBL, *Pseudomonas aeruginosa, Acinetobacter baumanii)*