

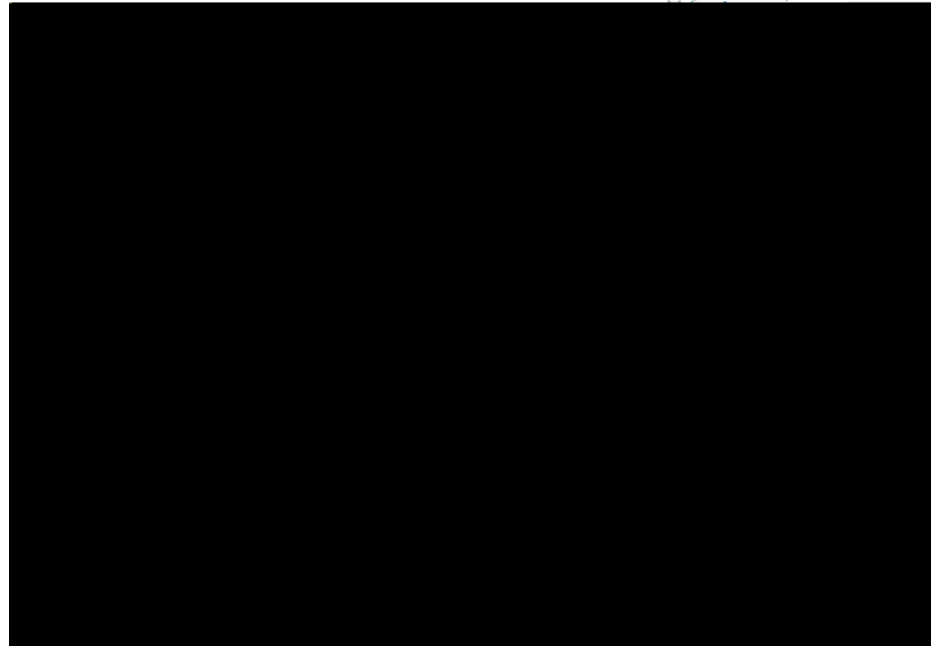


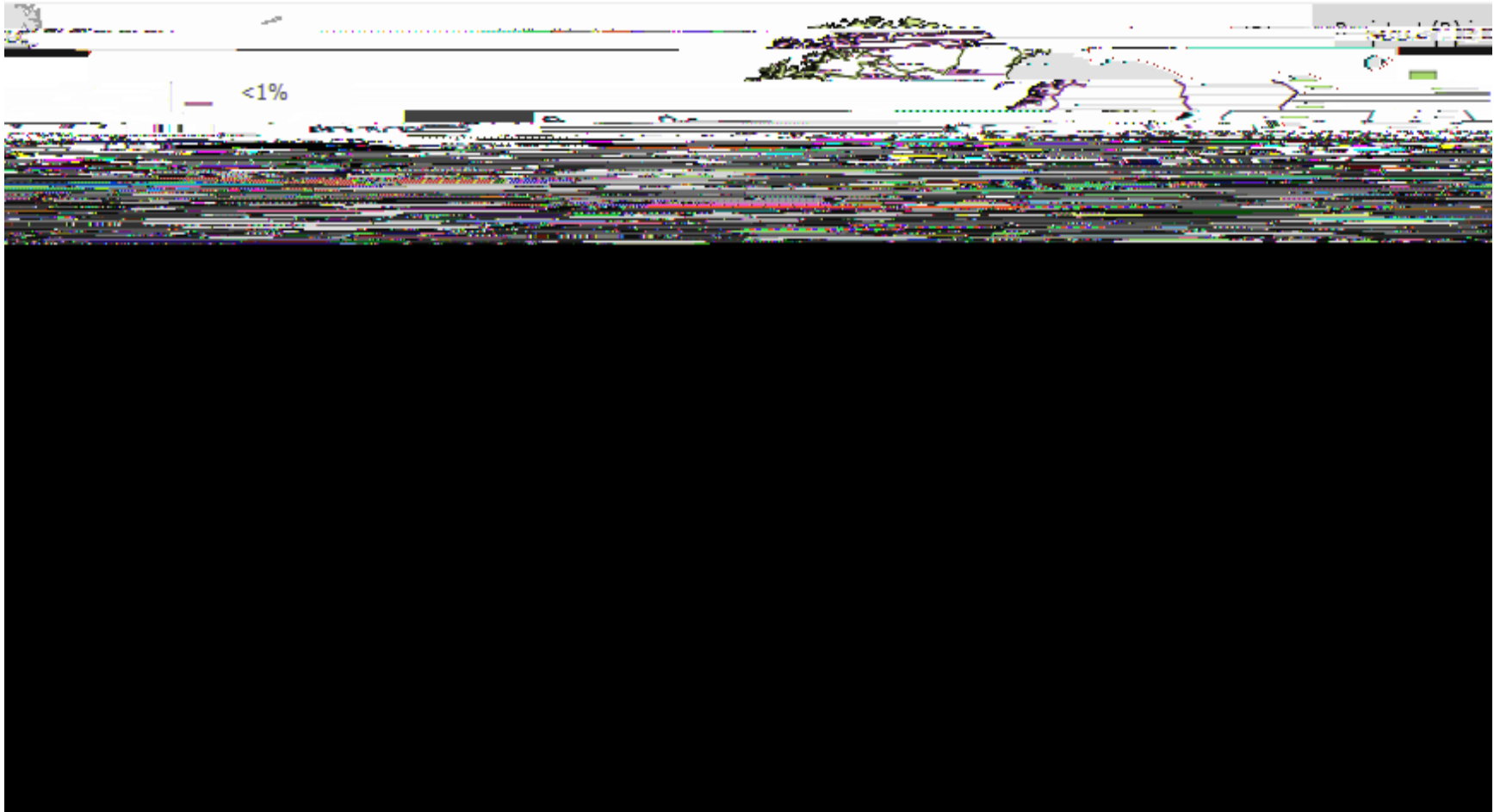
Antimicrobial Resistance:
Questions and unmet needs
Prof APR Wilson

- Significant threat to patient treatment
- Hospital – community transfer by patients, staff and equipment
- Colonization of travellers
- Antibiotics, urinary catheters, hand wash sinks
- Pan-resistance yet few new agents

- ESBL Extended spectrum lactamase producer
- AmpC - cephalosporinase
- CRO Carbapenem resistant organisms – permeability or carbapenemase
- CRE Carbapenem resistant Enterobacteriaceae
- OXA-48 carbapenemase plasmid mediated







- Patients move between healthcare facilities
- Stays shorter – general practice
- Staff vectors, equipment
- Acinetobacter/ survive drying
- Plasmid outbreaks
- LTCF reservoir of resistance – oro faecal, dementia, incontinence, urinary infection

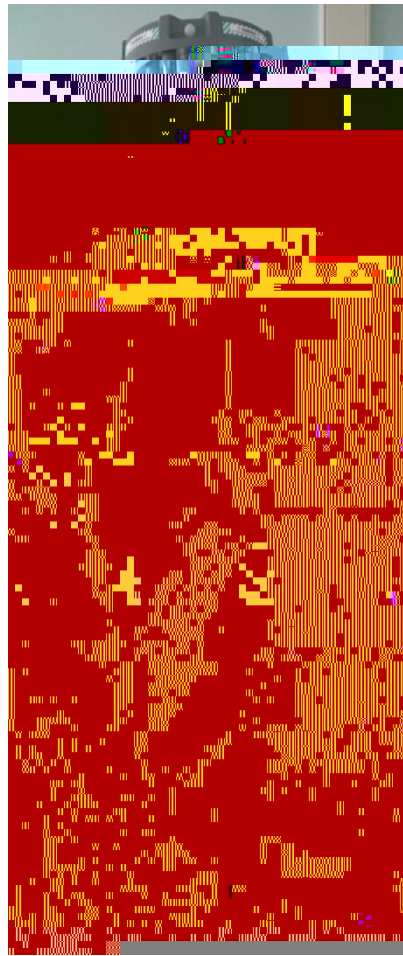
- Gut colonisation – travel history
- Plasmid transfer
- Food animals
- Antibiotic use, urinary catheters, sinks
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- Rectal carriage
- Multiple potential targets and species
- Screening identifies those to isolate quickly
- Resources, outbreak progression, patients
- Not cost effective for ESBL
- No indication for staff but encourage hand hygiene

- Selective decontamination: non-absorbable antibiotics +/- iv agents
- Labour intensive, induces resistance
- Transient reduction in CRO at 2 weeks
- Chlorhexidine wash ineffective
- Carriage detected up to 18 months in a few cases

- Standard Infection Control Precautions
- Single rooms reduce transmission 3/62 vs 7/39 CCM 2011 15 R211
- What are the common vectors for and ? Gut or hand?
- Pseudomonas -sinks, showers, drains. Are these the source of infection of patients getting bacteremia?

- Failure to clean associated with transmission
- Hydrogen peroxide vapour adjunct to terminal clean
- Human operator – product, dilution, distribution and contact time may be wrong
- Endoscope reprocessing – transmission if poor compliance



- Rising antimicrobial resistance is threatening life expectancy over next 5-10 years
- Control programs not effective as yet
- Accurate, inexpensive and rapid detection
- Interrupting modes of transmission
- Avoiding conditions under which resistance emerges