

And this is really to start considering the fact that genuine infections with primary pathogens, these are organisms that just cause infection and do nothing else, are pretty rare in most animals. So an example in dogs and cats would be a tuberculous microbacteria, for example. So very serious infections when they do occur, but pretty rare. And in fact, most of the time, what we call an infection actually involves a commensal organism or an opportunist organism. And these can occur in two ways.

Now, one is a genuinely opportunist infection where the organism gets introduced into an environment where it's not normally found. And it's able to colonise, establish, and cause infection. So examples would be traumatic wounds, implantation of a foreign body, surgery, particularly with implants, sutures, and so on.

Now, those tend to respond to first-line treatment. They tend to go away and stay away. And what's more important, when it comes to deriving repeated courses of antimicrobials, is what we would call this dysbiosis of the local microbiome. And this is where there's a heavy skewing towards more pathogenic organisms.