

INFECTIOUS DISEASES

SUPERBUGS

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Abstract: Superbugs have emerged among the microbes through the evolution of “survival of the fittest”, the speed of this evolution being fuelled by injudicious use of antibiotics in humans and animals. These are multidrug resistant microbes against which the effectiveness of antibiotic armamentarium is limited and cause increased mortality and morbidity. Multidrug resistant *Acinetobacter baumannii* and Carbapenemase producing *Klebsiella pneumoniae* are the leading superbugs among Gram negative bacteria whereas drug resistant staphylococcus species, enterococcus, *Streptococcus pneumoniae* are the common Gram positive superbugs. Superbug forms of *Salmonella typhi* and *Mycobacterium tuberculosis* pose a great public health challenge for elimination. Treatment of these infections should be preferably guided by experts in infectious diseases and good infection control practices. An efficient antibiotic stewardship and infection control practices seem to be our only hope to buy time in the battle against these superbugs.

Keywords: Superbugs, Antibiotic resistance, Infection control, Carbapenemases, Methicillin resistant *Staphylococcus aureus*.

Points to Remember

- *Superbugs are multidrug resistant microbes whose evolution is being hastened with irrational antibiotic use and poor infection control practices.*
- *Superbugs which are increasingly encountered are multidrug resistant *Acinetobacter baumannii*, carbapenemase producing *Klebsiella pneumoniae*, vancomycin resistant enterococcus (VRE), vancomycin resistant *Staphylococcus aureus* (VRSA), XDR salmonella, MDR and XDR tuberculosis.*
- *The antibiotic options to infections by superbugs are extremely limited and should be treated preferably with the help of infectious disease experts and microbiologists.*
- *Antibiotic stewardship and infection control are essential to control the rise of dangerous population of superbugs.*

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