The remarkable emergence of Clostridium difficile in the past decade has led to a plethora of approaches to containing and treating the organism as infection recurrence, changing epidemiology, healthcare costs increase and the recent impact of recurrent infections on the US healthcare payment system has caused concern.

Until 2012 there had not been any new advances in the management of this pathogen for 30 years with metronidazole and oral vancomycin being the only therapies available. Fidaxomicin was approved in both US and Europe for the treatment of C difficile infection (CDI). However for various reasons, most financial, this new agent has not been widely adopted even in recurrent cases of CDI. So there is still a need for new methods of ensuring CDI is a less worrying pathogen.

Since 2008 there have been several different approaches adopted to manage CDI these include new antibiotics such as surotomycin, cadazolid and SMT 19969, anti-toxin agents, vaccines and biological agents such as non-toxigenic C difficile or faecal transplantation (FMT). In addition some nations have instituted major reviews of the infection control methods and achieved significant reductions in the incidence of CDI in hospitals. However it has been reported that up to 40% of CDI cases now originate in the community setting as opposed to the nosocomial environment.

This review will discuss the changing epidemiology, the agents in development and the effect financial controls may have on this disease.

Biography
Glenn Tillotson has 30 years pharmaceutical experience in early pre-clinical and clinical research, commercialization, medical affairs, scientific communications including publication planning strategic drug development, life cycle management and global launch programs. Dr Tillotson has been instrumental in the development and launch of ciprofloxacin, moxifloxacin, gemifloxacin and other antibacterials. Glenn has held several key committee positions at the American College of Chest Physicians, he is on the Scientific Steering Committee for the GTCBio Annual Summit on Anti-infective Partnering. Currently Dr Tillotson has published >140 peer-reviewed manuscripts, presented >270 scientific posters and is on several journal Editorial Advisory Boards including the Lancet Infectious Disease, eBioMedicine and F1000.

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